Hamilton Niagara Haldimand Brant
LOCAL HEALTH INTEGRATION NETWORK
RÉSEAU LOCAL D'INTÉGRATION DES SERVICES DE SANTÉ
de Hamilton Niagara Haldimand Brant

Appendix H

Community Profile

Hamilton Niagara Haldimand Brant
Local Health Integration Network

August 2006

Ontario

ISBN 1-4249-2805-2

If we could change one thing.....

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Executive Summary

A key function of the Hamilton Niagara Haldimand Brant Local Health Integration Network (LHIN) is the local planning of health services to meet the health care needs of the people who receive care from the health care providers within the Hamilton Niagara Haldimand Brant LHIN area. The Hamilton Niagara Haldimand Brant LHIN has developed a Community Profile to promote awareness and understanding of the determinants of health, population health status and health care system capacity within the Hamilton Niagara Haldimand Brant LHIN area. This profile provides contextual information for the Hamilton Niagara Haldimand Brant LHIN's Integrated Health Services Plan for 2006, it highlights issues that will require further examination and planning, and it serves as an initial template for regular reporting on indicators of population health status and health care needs within the Hamilton Niagara Haldimand Brant LHIN area.

The population health framework was adapted from one developed by Statistics Canada and the Canadian Institute for Health Information. It includes indicators of health system utilization, capacity and performance that are consistent with the requirements of the LHIN's Integrated Health Services Plan. The purpose of the population health framework is to categorize selected indicators which best convey the external factors that influence health, the lifestyle behaviours and health care practices which directly impact health status, and the capacity and effectiveness of the health care system to respond to population needs. This framework will evolve in response to the changing planning information needs of the Hamilton Niagara Haldimand Brant LHIN and the availability of reliable indicator data.

Population health is influenced by a range of factors, including social, economic and physical environments, personal health practices, individual capacity and coping skills, as well as access to health services. An examination of Hamilton Niagara Haldimand Brant LHIN-wide demographic, socio-economic and health status indicators reveals that, while the Hamilton Niagara Haldimand Brant LHIN population is growing more slowly than Ontario as a whole, it has a higher and growing proportion of seniors, as reflected in the LHIN's higher rates of those chronic health conditions which are more common among seniors, (i.e., arthritis, diabetes, high blood pressure and activity limitations). Compared to the Ontario average rate, a higher percentage of the LHIN population has not completed high school. Lower percentages are observed in the Hamilton Niagara Haldimand Brant LHIN area for those with no knowledge of English or French and for immigrants and visible minorities. With respect to lifestyle behaviours, smoking and obesity are more prevalent in the Hamilton Niagara Haldimand Brant LHIN population compared to Ontario as a whole.

The population of the LHIN exhibits significantly high, age-standardized rates of hospitalization and death, and a lower life expectancy at birth among males and females, compared to the Ontario average rate. Access to primary care is a key issue in the Hamilton Niagara Haldimand Brant LHIN area, as reflected in the significantly low family physician: population ratio and higher rates of non-urgent emergency department use and inpatient hospitalization for ambulatory care sensitive conditions, compared to the Ontario average rate. At the county and municipality level, the communities within the Hamilton Niagara Haldimand Brant LHIN area vary substantially in terms of population size, growth, age structure, socio-economic characteristics, disease prevalence and the use of health care services. This variation across the Hamilton Niagara Haldimand Brant LHIN is discussed in greater detail in the following pages.

Characteristics of the Population and Health Care System in the Hamilton Niagara Haldimand Brant Local Health Integration Network

Population Health Framework:

The Hamilton Niagara Haldimand Brant LHIN Profile uses a population health framework that has been adapted from one developed by Statistics Canada and the Canadian Institute for Health Information.

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The Population Health Framework guides the selection of indicators to describe the HNHB LHIN population and health care system and inform the LHIN's Integrated Health Services Plan

The framework includes indicators of population health status and health care system utilization that are consistent with the requirements of the LHIN's Integrated Health Services Plan. The purpose of the framework is to guide and categorize a selection of indicators which help describe the population within the Hamilton Niagara Haldimand Brant LHIN area in terms of the demographic, social, economic and environmental factors which can influence population health, as well as the lifestyle behaviours and health care practices which directly impact health status. The framework also includes indicators that describe the characteristics, capacity and effectiveness of the health care system to respond to population health care needs.

Data Sources:

Specific source data is noted throughout the document, as appropriate. In preparing this profile, the Hamilton Niagara Haldimand Brant LHIN utilized the following sources of data and information:

- Health Canada.
- Indian and Northern Affairs Canada.
- Statistics Canada: 2001 Census, Health Indicators, Health Reports;
- Ontario Ministry of Health and Long-Term Care: Health System Intelligence Project; Population Health Planning Database; French Language Services Branch; Underserviced Area Program.

Hamilton Niagara Haldimand Brant LHIN Geography

18 municipalities, 2 Regional governments, 2 federal reserves, 18 mayors, 12 Ontario MPPs, 13 Federal MPs

The Hamilton Niagara Haldimand Brant LHIN stretches from Fort Erie to Turkey Point and Paris to Lowville and covers approximately 7,000 square kilometres. It encompasses Brant, Burlington, Haldimand, Hamilton, Niagara and Norfolk, each

having a rich history of local identification and sense of community despite the fact there have been numerous boundary changes over the past three decades.

Wide Variation in Population Density within HNHB LHIN, But All Communities Include Rural Areas

The Regional Municipality of Niagara encompasses 12 municipalities, and the City of Hamilton incorporates 6 former municipalities. The Counties of Norfolk and Haldimand were united in 1974 and then separated again in 2001. Brant area, including the City of Brantford and the City of County of Brant underwent additional boundary revisions in 2005. Burlington, part of the Regional Municipality of Halton, is considered part of the Greater Toronto Area (GTA). The LHIN has wide variations in population density. It includes both urban and rural land areas. While Haldimand and Norfolk have the greatest percentage of rural settlement, all communities in the LHIN include rural areas.

1.0 Population Characteristics and the Determinants of Health

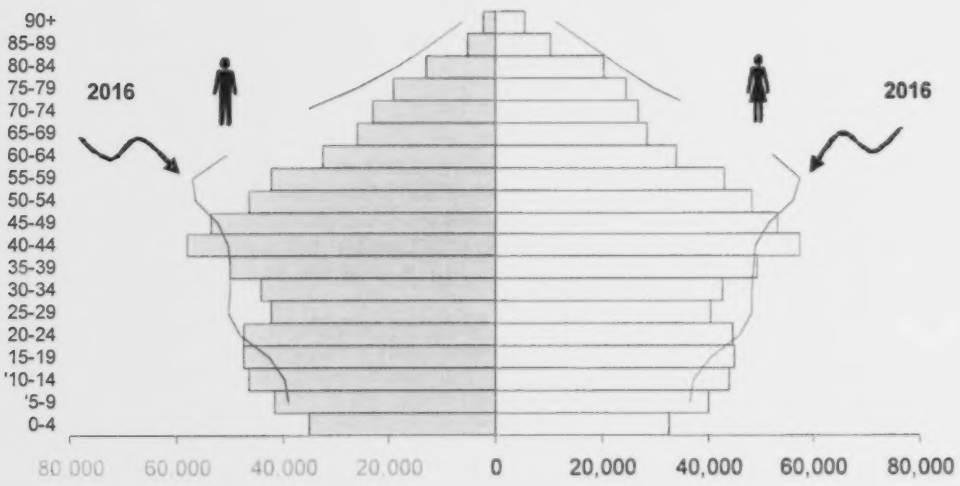
1.1 Demographic and Socio-economic Characteristics

The age structure and socio-economic characteristics of a population are important markers of health status

Health status is influenced by social, economic and physical environments, personal health practices, individual capacity, coping skills and access to health services. The prevalence of preventable health conditions, chronic illness and disability is higher among low income groups, the elderly and those with less education[i]. Health system planners monitor the demographic and socio-economic characteristics of communities in order to identify those population groups most at risk of poor health status and to help explain existing patterns of health care utilization. Within this profile, the Hamilton Niagara Haldimand Brant LHIN presents measures of socio-economic status (SES) recommended by population health researchers for their strong association with health status[ii], including: population age structure, income, education, employment, family composition, language, immigrant, visible minority and aboriginal population, and the proportion of the population spending more than 30% of their income on housing.

Demographic Profile

Chart 1: HNHB Population 2005 and Projected in 2016, by Sex and Age Group:



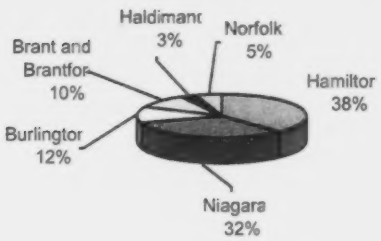
Source: Ontario Ministry of Finance.

In 2005, the HNHB LHIN had over 1.3M people, the 3rd largest population of all LHINs in Ontario

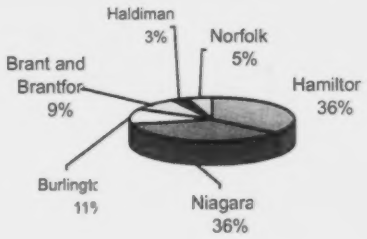
As of 2005, the area of the Hamilton Niagara Haldimand Brant Local Health Integration Network was home to over 1.3 M people[1], the third largest population of all LHIN regions in Ontario. The Hamilton Niagara Haldimand Brant LHIN area represents 11% of the provincial population and is spread across 20 census subdivisions (CSD)[2]. 38% of the Hamilton Niagara Haldimand Brant LHIN population resides in Hamilton, 32% in Niagara[3], 12% in Burlington, 10% in the Brant county and Brantford and 8% in Haldimand and Norfolk.

Charts 2 & 3: HNHB Population by County, Total and Aged 65+, 2005:

% of Total HNHB Population, by County, 2005:



% of Total HNHB Seniors Population , 65+, by County, 2005:



Source: 2005 Statistics Canada Population Estimates.

HNHB is home to over 200,000 seniors aged 65+, the largest number of seniors of all LHINs

The proportion of older residents in an area is an important indicator of potential health care needs because older people are more likely to fall ill and need health care than people in younger age groups[iii]. The Hamilton Niagara Haldimand Brant LHIN area is home to over 200,000 seniors aged 65+; it is the largest number of seniors of all 14 LHIN populations in Ontario.

15.1% of HNHB Residents are Seniors, Compared to Only 12.9% for All of Ontario

Seniors represent 15.1% (2006) of the total Hamilton Niagara Haldimand Brant LHIN population, compared to the all Ontario rate of 12.9%. Within the Hamilton Niagara Haldimand Brant LHIN area, Hamilton and Niagara are each home to over 73,000 seniors, and together represent 72% of the total LHIN population aged 65+.

Between 1995 and 2005, the HNHB population grew by 9%, less than the all Ontario rate (14%)

Between 1995 and 2005, the average rate of population growth in the Hamilton Niagara Haldimand Brant LHIN area was 9%, which was less than the all Ontario rate of 14%. Within the Hamilton Niagara Haldimand Brant LHIN area, rates of population growth over this decade were highest in Haldimand (34%) and Burlington (28%), more than three times the rate of growth for the LHIN population.

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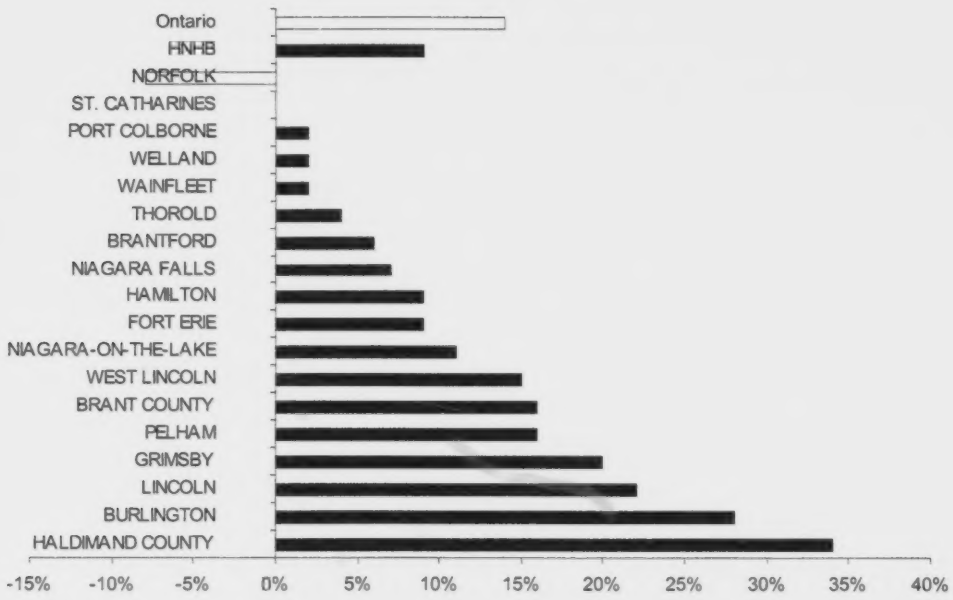
[1] The Norfolk CSD is shared with the South West LHIN. Approximately 80% of Norfolk's population is contained within the Hamilton Niagara Haldimand Brant LHIN area. Data shown here refer to the entire CSD and not just that portion within the Hamilton Niagara Haldimand Brant LHIN.

[2] CSD: Census subdivision an area that is a municipality or that is deemed to be equivalent to a municipality for statistical reporting purposes.

[3] CD: Census divisions are intermediate geographic areas between the province level and the municipality (census subdivision).

Chart 4: % Change in Population, 1995-2005, HNHB, by Census Subdivision:

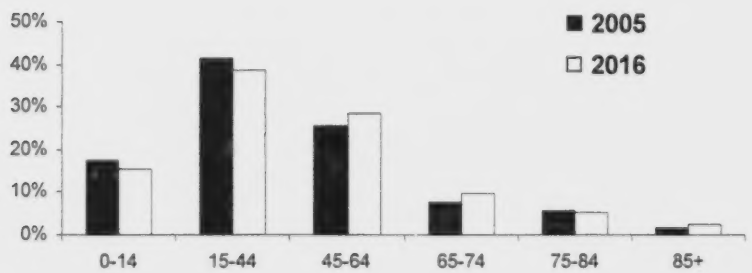


Source: Statistics Canada and Ontario Ministry of Finance.

HNHB's population is projected to grow 11% to just over 1.5M people between 2005 and 2016

Between 2005 and 2016, the LHIN population is projected to grow by 11% to just over 1.5M people. It is important to note that, while the highest rate of expected population growth is among the 'very old' (e.g., a 53% increase in those aged 85+), this represents a relatively small actual number of additional 'very old' individuals (12,300). Over this same decade the population aged 45-64 is projected to grow 23% (an increase of 80,000).

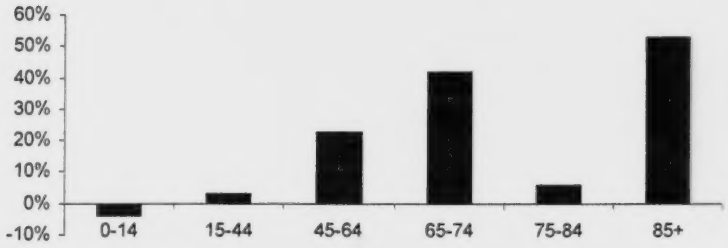
Chart 5: Age Group as a % of Total HNHB Population, 2005 and 2016:



Source: Statistics Canada and Ontario Ministry of Finance.

Chart 6: % Change in HNHB Population, 2005-2016, by Age Group:

*The highest **rate** of expected population growth is among the very old, but this represents a relatively small actual number of additional 'very old' individuals (12,300)*

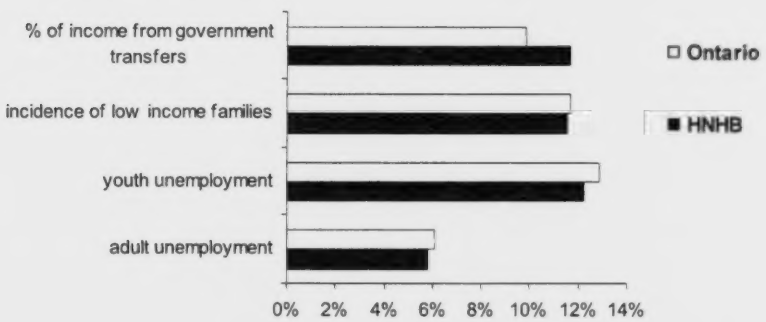


Source: Ontario Ministry of Finance.

Socio-economic Status: Income, Education, Employment, Family Composition and Dwelling Status

Chart 7: Rates of Unemployment and Low Income Families, HNHB LHIN and Ontario, 2001:

Research shows that lower incomes are strongly associated with poor health and higher rates of death[1]



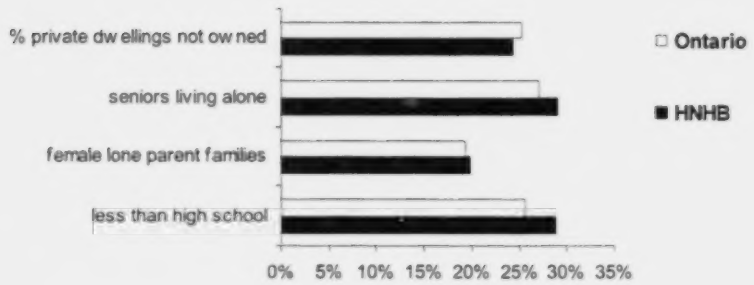
Source: 2001 Census of Canada.

Income and employment status are commonly used as indicators of socio-economic status. Research from Health Canada shows that paid work provides not only income, but also a sense of identity and social contacts[iv].

While HNHB LHIN-wide rates of adult and youth unemployment and low income are less than all Ontario rates, within HNHB these rates vary considerably

Hamilton Niagara Haldimand Brant LHIN-wide rates of adult and youth unemployment (5.8% and 12.2%, respectively) and low income families[4] (11.5%) are less than Ontario rates (6.1%, 12.9% and 11.7%, respectively). However, these rates vary considerably within the Hamilton Niagara Haldimand Brant area. Brantford has the highest rates of adult and youth unemployment in the LHIN (6.8% and 15.2%, respectively) with Hamilton having the highest incidence of low income families (16.1%). In contrast, Niagara-on-the-Lake has the lowest rates of adult and youth unemployment and low income families (2.7%, 4.0% and 3.0%, respectively)

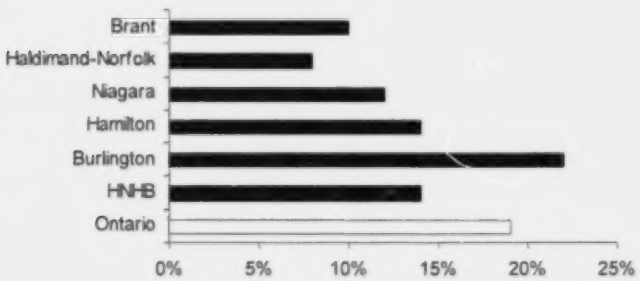
Chart 8: Education and Dwelling Characteristics, HNHB LHIN and Ontario, 2001:



Source: 2001 Census of Canada.

Chart 9: % of the Population with Bachelor's Degree or Higher, 2001:

In HNHB, a higher proportion of the population has less than a high school education and a lower proportion has a university education, compared to all Ontario rates



Source: 2001 Census of Canada.

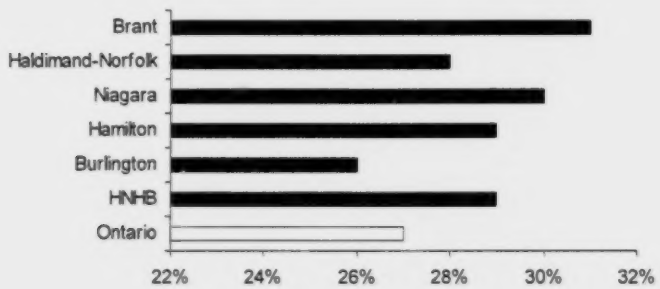
[4] Low Income Cutoff (LICO): Income levels at which families or unattached individuals spend 20% more than average on food, shelter and clothing. Source: Statistics Canada, 2001 Census Dictionary.

Within most populations, education tends to be strongly associated with income. Higher levels of education may also be linked to better health outcomes due to better knowledge of risk factors and the health care system. Hamilton Niagara Haldimand Brant has a higher proportion of the population with less than a high school education and a lower proportion with a bachelor degree or higher, (28.8% and 14%, respectively) than for all of Ontario (25.7% and 19%, respectively). Within the LHIN, the proportion of populations with less than high school education ranges from 37.4% in Norfolk to 17.7% in Burlington. The proportion of populations with a bachelor degree or higher ranges from 8% in Haldimand and Norfolk to 22% in Burlington.

29% of HNHB Seniors Live Alone, Above the Ontario Average of 27%

29% of seniors aged 65+ live alone in Hamilton Niagara Haldimand Brant communities, higher than the provincial average of 27%. Within Hamilton Niagara Haldimand Brant the highest proportions of seniors living alone are found in St. Catharines (33%) and Brantford (33%) and the lowest proportion in Wainfleet (19%). The lack of social support among the elderly contributes to poor health status and the need for formal and institutional care.

Chart 10: % Seniors Living Alone, HNHB LHIN and Ontario, 2001:



Source: 2001 Census of Canada.

Chart 11: % Female Lone Parent Families, HNHB LHIN and Ontario, 2001:

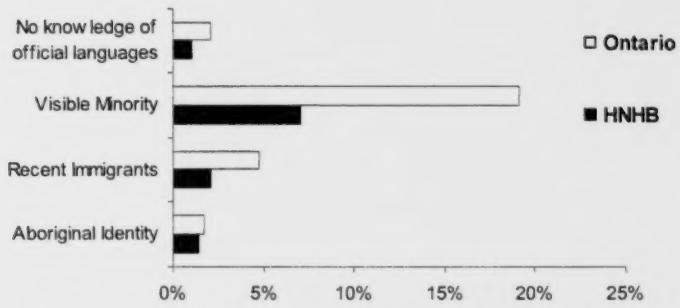
19.8% of families in HNHB are led by a female lone parent

Source: 2001 Census of Canada.

Female-headed lone parent families often have lower incomes. 19.8% of families in Hamilton Niagara Haldimand Brant are led by a female lone parent. While this rate is similar to the rate for Ontario, within Hamilton Niagara Haldimand Brant the highest proportions of female lone parent families reside in Fort Erie, Niagara Falls and Welland, where almost one-quarter of all families with children are headed by a female lone parent. The lowest rate of female lone parenthood is in West Lincoln (9.2%).

Ethno-cultural Characteristics: Language; Aboriginal, Immigrant and Visible Minority Populations

Chart 12: Indicators of Language, Immigration and Ethnic Origin, HNHB LHIN and Ontario, 2001:



Source: 2001 Census of Canada.

1.4% of the HNHB population is of Aboriginal Identity. Approximately half of the aboriginal population residing in HNHB live On Reserve

Aboriginal status is also a marker of potential health care needs. Average household income and average life expectancy at birth are lower for aboriginal populations than for Canada as a whole[v]. According to 2001 census data, the Hamilton Niagara Haldimand Brant LHIN has a lower proportion of people of Aboriginal Identity[5] (1.4%) than Ontario as a whole (1.7%). Within Hamilton Niagara Haldimand Brant LHIN area, Hamilton is home to the largest number of people of Aboriginal Identity (6,300), followed by Niagara (5,200) and Brant county (3,300). Burlington, Haldimand and Norfolk are each home to just over 900 people of Aboriginal Identity. There are two reserves within Hamilton Niagara Haldimand Brant, Six Nations and Mississaugas of the New Credit. Approximately half of the Aboriginal population residing in the Hamilton Niagara Haldimand Brant LHIN area live On Reserve.

It is important to note that the First Nations communities in the Hamilton Niagara Haldimand Brant LHIN area are underestimated in the census data due to incomplete enumeration. Band registry lists with Indian and Northern Affairs Canada show the total registered Aboriginal population in Hamilton Niagara Haldimand Brant LHIN as of August, 2006 was 24,263[vi].

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[5] Aboriginal Identity: Refers to those persons who reported identifying with at least one Aboriginal group, i.e. North American Indian, Métis or Inuit (Eskimo), and/or those who reported being a Treaty Indian or a Registered Indian as defined by the *Indian Act* of Canada and/or who were members of an Indian Band or First Nation. Source: Statistics Canada, 2001 Census Dictionary.

Recently arrived immigrants and visible minorities typically display lower incomes and higher rates of unemployment, compared to those who have lived in Canada longer[vi][vii][viii].

HNHB LHIN area has a lower proportion of recent immigrant and visible minority populations relative to Ontario rates

The Hamilton Niagara Haldimand Brant LHIN area is home to a lower proportion of recent immigrant[6] (2.1%) and visible minority[7] (7.0%) populations relative to Ontario rates (4.8% and 19.1%, respectively). Within the Hamilton Niagara Haldimand Brant LHIN, Hamilton is home to a higher proportion of recent immigrants (3.3%), and Burlington and Hamilton are each home to slightly higher proportions of visible minority populations (7.5% and 10.9%, respectively), compared to other communities in the LHIN.

The Hamilton Census Metropolitan Area Has the 3rd Highest Percent Foreign Born Residents in Canada

Due to proximity to Toronto and a relatively less expensive cost of living, Hamilton is becoming increasingly important as a centre receiving newcomers to Canada as well as a noted destination for secondary migration. Every year, approximately 3,500-4,000 newcomers choose Hamilton as their home. As of 2001, more than one-quarter of the population of the Hamilton Census Metropolitan Area were foreign-born (26.5%). This represents the third highest proportion of foreign-born residents among such urban areas in all of Canada, surpassed only by Toronto and Vancouver[8]. Niagara, with its close proximity to the United States border, is a major receiver of refugees, which is not captured through the census enumeration. There are also seasonal migrant workers who locate in Niagara, Haldimand and Norfolk counties for temporary employment in the agricultural and tourism sectors, and who would not be captured in the population statistics.

1.0% of HNHB population knows neither English nor French

Lack of knowledge of official languages is related to recent immigrant status and to lower income[ix]. Approximately 1.0% of the Hamilton Niagara Haldimand Brant LHIN population knows neither English nor French, lower than the Ontario rate (2.1%). Within the Hamilton Niagara Haldimand Brant LHIN area the highest rates of no knowledge of English or French are found in Hamilton (1.8%), while the lowest rates are in Wainfleet and Pelham (0%).

Welland, Port Colborne, and Hamilton are Designated Areas under the French Language Services Act

Francophones in 'designated areas' are guaranteed the right to receive services, including health services, in French. 'Designated Areas' under the French Language Services (FLS) Act of 1986 are areas where Francophones form at least 10% of the local population and/or urban centers with at least 5,000 Francophones. The Hamilton Niagara Haldimand Brant LHIN communities of Welland, Port Colborne and Hamilton are designated areas under the Act. 2.3% of the Hamilton Niagara Haldimand Brant LHIN population is Francophone (i.e., French as a mother tongue[9]).

Over 28,000 Francophones in HNHB

There are just over 28,000 Francophones within the Hamilton Niagara Haldimand Brant LHIN area. 55% of this Francophone population resides in Niagara, 28%

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[6] Recent Landed immigrants are people who have been permitted by immigration authorities to live in Canada permanently and arrived after 1996.

[7] Visible Minority: Under the *Employment Equity Act*, members of visible minorities are persons, other than Aboriginal persons, who are not white in race or color. Source: Statistics Canada, 2001 Census Dictionary.

[8] Source: Settlement and Integration Services Organization (SISO) Hamilton.

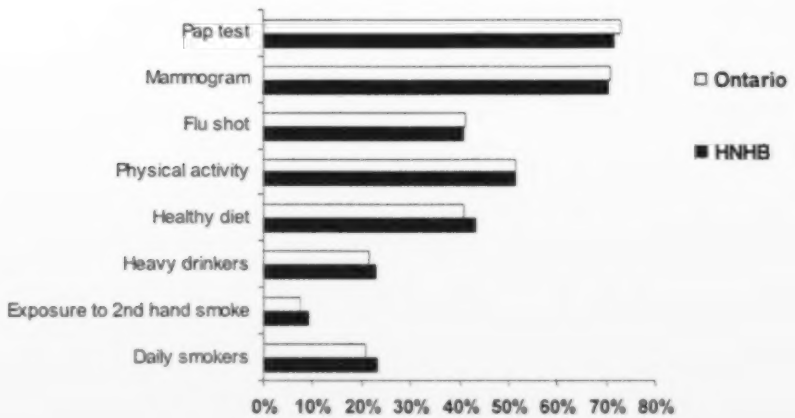
[9] Mother Tongue: Refers to the first language learned at home in childhood and still understood by the individual at the time of the census. Individuals who indicated French only or English and French are included in this data. Source: Statistics Canada, 2001 Census Dictionary.

in Hamilton, 7% in Burlington, 5% in Brant and Brantford and 4% in Haldimand and Norfolk.[x] It is important to note that, not unlike other language groups, the Francophone population in the Hamilton Niagara Haldimand Brant LHIN area varies in terms of its demographic, socio-economic and health status characteristics, as well as its health care needs. For instance, Niagara's Francophone population includes a large proportion of seniors most of whom are Canadian born. In contrast, a large proportion of the Francophones in the Hamilton area are younger and foreign-born.

1.2 Lifestyle Behaviours and Preventive Care

Chart 13: Prevalence of Lifestyle Risk Factors and Preventive Care, HNHB LHIN and Ontario, 2005:

Unhealthy diet, lack of physical activity, smoking and other poor health practices are known to be related to increased risk of chronic disease



Source: Canadian Community Health Survey, 2005.

Lifestyle behaviours such as smoking, unhealthy diet and lack of physical activity are known risk factors for chronic diseases and conditions (e.g., obesity, diabetes, heart disease, end-stage renal disease and cancer). Poor health and the presence of chronic disease can lead to more frequent use of health care services, more prescription drug use, a higher risk of hospitalization, higher health system costs and higher rates of disability and death.

23.1% of HNHB population are smokers and 9.1% are exposed to second-hand smoke, significantly higher than Ontario rates

The Ontario average rates of 20.7% for smoking[10] and 7.3% for exposure to second-hand smoke[11] are exceeded in the Hamilton Niagara Haldimand Brant LHIN area (23.1% are smokers, significantly more than the Ontario average, and 9.1% exposed to second-hand smoke). Residents of Haldimand/Norfolk (29.8% and 10.1%, respectively) display the highest rates of smoking and exposure to second-hand smoke within the LHIN area. Lowest rates of smoking and exposure to second-hand smoke are displayed in Burlington[12] (18.3% and 6.4%).

23% of HNHB Residents are Heavy Drinkers

The Hamilton Niagara Haldimand Brant LHIN area has a higher proportion of heavy drinkers[13] (23%), compared to the all Ontario rate (21.5%). The highest rates of heavy drinking are exhibited by residents of Haldimand and Norfolk (26%) and the lowest rates by residents of Burlington (19.7%).

43.3% of the HNHB population Consume Fruits and Vegetables at least 5 times a Day

43.3% of the population of the Hamilton Niagara Haldimand Brant LHIN area consume fruits and vegetables at least 5 times a day[14], compared to 41% for all Ontario. Within the Hamilton Niagara Haldimand Brant LHIN area the highest rates of fruit and vegetable consumption are displayed by residents of Hamilton (44.3%) and the lowest rates by residents of Haldimand and Norfolk (35.4%).

HNHB Residents Display Above Average Rate of Physical Activity

The overall rate of physical activity[15] in the Hamilton Niagara Haldimand Brant LHIN area (51.5%) is higher than the Ontario average rate (51.3%). Within the Hamilton Niagara Haldimand Brant LHIN area, the highest rates of physical activity are found in Brant (55.2%) and the lowest rates in Hamilton (48.9%).

41% of HNHB population had a flu shot in past year, similar to the all Ontario rate

The use of preventive health care services can lead to early detection of disease, which ultimately results in reduced morbidity and mortality. In 2005, 41% of Hamilton Niagara Haldimand Brant LHIN residents reported having had a flu shot[16] in the past year; this is similar to the Ontario average rate. Within the Hamilton Niagara Haldimand Brant LHIN area, the lowest rate of immunization for influenza was in Burlington (38.5%).

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[10] Population aged 12 and over who reported being a current smoker (daily or occasional). Source: Statistics Canada, Canadian Community Health Survey 2005.

[11] Non-smoking population aged 12 and over who reported that at least one person smokes inside their home every day or almost every day. Source: Statistics Canada, Canadian Community Health Survey 2003.

[12] Rates from the Canadian Community Health Survey (CCHS) were available for Halton Region only. Halton rates from the CCHS have been used as a proxy for Burlington.

[13] 'Heavy drinking' is defined as current drinkers who reported drinking 5 or more drinks on one occasion, 12 or more times a year. Source: Statistics Canada, Canadian Community Health Survey 2005.

[14] Population aged 12 and over, who consume fruits and vegetables 5 or more times/day. Source: Statistics Canada, Canadian Community Health Survey 2005.

[15] Population aged 12 and over reporting leisure-time as physically active or moderately active. Source: Statistics Canada, Canadian Community Health Survey 2005.

[16] Population aged 12 and over (aged 65 and over for data from the National Population Health Survey) who reported when they had their last influenza immunization (flu shot). Source: Statistics Canada, Canadian Community Health Survey 2005.

71% of HNHB females aged 50-69 had a mammogram within the last two years, similar to the all Ontario rate

Screening mammography is an important strategy for early detection of breast cancer. As of 2005, nearly 71% of women aged 50-69 in the Hamilton Niagara Haldimand Brant LHIN reported having had a mammogram within the last two years[17], similar to the rate for all of Ontario. Within Hamilton Niagara Haldimand Brant, the highest rate of mammography screening was in Burlington (81.8%) and the lowest rate in Haldimand and Norfolk (65.1%).

71.7% of HNHB females had Pap test within the past three years, slightly lower than the all Ontario rate of 72.9%

Pap tests detect pre-malignant lesions before cancer of the cervix develops and can improve chances of survival through early intervention. As of 2005, 71.7% of women in the Hamilton Niagara Haldimand Brant LHIN area reported having had a Pap smear for cervical cancer screening within the previous three years[18]. This proportion is lower than for all Ontario (72.9%). Within the Hamilton Niagara Haldimand Brant LHIN area, the highest rate of Pap testing was in Burlington (76.8%) and the lowest rates in Niagara, Haldimand and Norfolk (70.2%).

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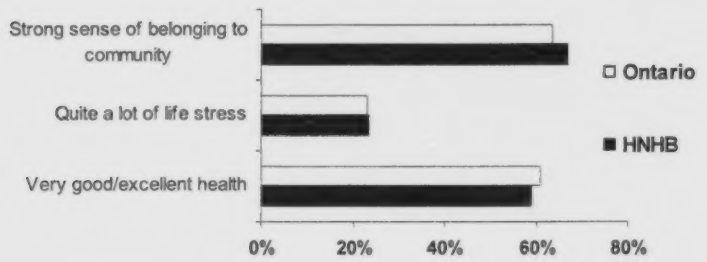
[17] Source: Statistics Canada, Canadian Community Health Survey 2005.

[18] Women aged 18 to 69 who reported when they had their last Pap smear test. Source: Statistics Canada, Canadian Community Health Survey 2005.

2.0 Population Health Status

2.1 Well-being and Personal Resources

Chart 14: Indicators of Personal Well-being, HNHB LHIN and Ontario, 2005:



Source: Canadian Community Health Survey, 2005.

59% of HNHB residents rate their overall health as 'excellent' or 'very good', slightly lower than Ontario as a whole (60.8%).

Self-reported health is an indicator of overall health status. It can reflect aspects of health not captured in other measures, such as: incipient disease, disease severity, aspects of positive health status, physiological and psychological reserves and social and mental function. In 2005, the proportion of Hamilton Niagara Haldimand Brant LHIN residents rating their overall health as 'excellent' or 'very good' was 59%; slightly lower than for the Ontario proportion (60.8%)[19]. Within the Hamilton Niagara Haldimand Brant LHIN area, the highest rate of excellent/good health was reported in Burlington (66.1%) and the lowest rate in Brant County (54.9%).

Self-reported mental health provides a general indication of the population suffering from some form of mental disorder, mental or emotional problems, or distress, not necessarily reflected in self-reported (physical) health. In 2005, the proportion of Hamilton Niagara Haldimand Brant LHIN residents rating their mental health as 'excellent' or 'very good'[20] was 73.7%, higher than the all Ontario rate (72.8%). Within the Hamilton Niagara Haldimand Brant LHIN area, the highest rates were displayed in Brant County and Burlington (76.1%) and the lowest rate in Haldimand and Norfolk (71%).

24% of HNHB residents report 'Quite a Lot of Life Stress'

23.6% of Hamilton Niagara Haldimand Brant LHIN residents reported 'quite a lot of life stress'[21]; a rate similar to the all Ontario rate (23.1%). Within the Hamilton Niagara Haldimand Brant LHIN area the highest rate of 'quite a lot of life stress' was in Burlington (26.6%) and the lowest rate in Niagara (22.6%).

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[19] Population (aged 12 and over for data from the Canadian Community Health Survey and National Population Health Survey, North component) who rate their own health status as being excellent or very good. Source: Statistics Canada, Canadian Community Health Survey 2005.

[20] Population aged 12 and over who rate their own mental health status as being excellent or very good. Source: Statistics Canada, Canadian Community Health Survey 2005.

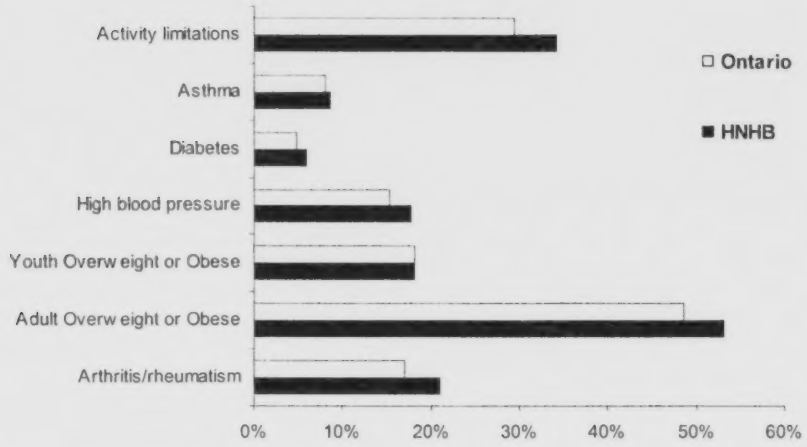
[21] Population aged 18 and over who reported 'quite a lot of life stress'. Source: Statistics Canada, Canadian Community Health Survey 2005.

Two-thirds of HNHB residents report a Strong Sense of Belonging to Their Local Community

Research shows a high correlation of sense of community belonging with physical and mental health. In 2005, two-thirds of Hamilton Niagara Haldimand Brant LHIN residents reported a 'very strong or somewhat strong sense of belonging' to their local community[22], a proportion that was significantly higher than the all Ontario rate (63.4%). Within the Hamilton Niagara Haldimand Brant LHIN area, the highest rate was displayed in Brant County (69.3%) and the lowest rate in Haldimand and Norfolk (63.2%).

2.2 Health Conditions and Human Function

Chart 15: Prevalence of Chronic Health Conditions, HNHB LHIN and Ontario, 2005:



Source: Canadian Community Health Survey, 2005.

HNHB displays significantly higher rates of arthritis/rheumatism, adult obesity and high blood pressure, and higher rates of diabetes, asthma and overweight adults, compared to Ontario as a whole

Chronic health conditions such as arthritis, obesity, high blood pressure, asthma, pain and diabetes place a high burden on the health care system and reduce the quality of life of those who suffer from the condition. In 2005, residents of Hamilton Niagara Haldimand Brant LHIN displayed significantly high rates of arthritis/rheumatism, adult obesity and high blood pressure, and higher rates of diabetes, asthma and overweight adults, compared to Ontario as a whole. It is important to note that prevalence rates are not age-standardized, and therefore populations with a high proportion of seniors (such as is the case in the Hamilton Niagara Haldimand Brant LHIN area) will tend to have higher rates of chronic conditions which are associate with aging, (e.g., high blood pressure, diabetes, arthritis, activity limitations, etc).

[22] Population aged 12 and over who describe their sense of belonging to their local community as very strong or somewhat strong. Source: Statistics Canada, Canadian Community Health Survey 2005.

High Percent (21%) of HNHB residents reported having Arthritis/ Rheumatism[1]

In 2005, 21% of Hamilton Niagara Haldimand Brant LHIN residents reported having arthritis/rheumatism[23], a rate significantly higher than the all Ontario rate (17.1%). Within the Hamilton Niagara Haldimand Brant LHIN area, significantly high rates of arthritis/rheumatism were in Niagara (23.8%) and Haldimand and Norfolk (24.7%). The lowest rates of arthritis/rheumatism were in Burlington (17.1%).

Percent of HNHB residents reporting being Overweight or Obese (53.1%) is significantly Greater than Ontario rate (48.5%)

According to World Health Organization guidelines increased health risks are associated with being overweight or obese. Based on Body Mass Index[24], 34.6% of the adult population of the Hamilton Niagara Haldimand Brant LHIN area is considered overweight and 18.5% are obese. The total proportion of Hamilton Niagara Haldimand Brant LHIN residents reporting being overweight or obese (53.1%) is significantly greater than the Ontario rate (48.5%). Within the Hamilton Niagara Haldimand Brant LHIN area, significantly high rates of obesity are found in Brant (21.3%) and Niagara (19.2%), and the lowest rates of obesity are in Burlington (14.1%).

While the rates of overweight and obesity among youth[25] in the Hamilton Niagara Haldimand Brant LHIN area (18.2%) are similar to the all Ontario rate, within the Hamilton Niagara Haldimand Brant LHIN area the highest rates youth overweight and obesity are in Brant (25%) and the lowest rates in Burlington (15.5%).

High Percent (17.7%) of HNHB residents reported having High Blood Pressure[1]

In 2005, 17.7% of Hamilton Niagara Haldimand Brant LHIN residents reported having high blood pressure[26], a rate that is significantly higher than the all Ontario rate (15.2%). Within the Hamilton Niagara Haldimand Brant LHIN area, significantly high rates of high blood pressure were reported in Hamilton (17.7%) and significantly low rates in Burlington (15.5%).

The rate of diabetes[27] in the Hamilton Niagara Haldimand Brant LHIN area was 5.9% in 2005, higher than the all Ontario rate (4.8%), but not significantly different. Within the Hamilton Niagara Haldimand Brant LHIN area, the highest rate of diabetes was in Hamilton (6.2%) and the lowest rate in Burlington (3.2%).

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[23] Population aged 12 and over who report that they have been diagnosed by a health professional as having arthritis or rheumatism. Arthritis/ rheumatism include both rheumatoid arthritis and osteoarthritis, but excludes fibromyalgia. Source: Statistics Canada, Canadian Community Health Survey 2005.

[24] Body Mass Index (BMI) is a method of classifying body weight according to health risk. BMI is calculated as follows: weight in kilograms divided by height in meters squared. The adult population (aged 18+) with a BMI of between 25-29 is considered overweight and those with a BMI of 30 or more, obese. Source: Statistics Canada, Canadian Community Health Survey 2005.

[25] Body mass index (BMI) for youth is different from that of adults as they are still maturing. A youth BMI of at least 25 indicates overweight and a BMI of 30, obese. Source: Statistics Canada, Canadian Community Health Survey 2005.

[26] Population aged 12 and over who report that they have been diagnosed by a health professional as having high blood pressure. Source: Statistics Canada, Canadian Community Health Survey 2005.

[27] Population aged 12 and over who report that they have been diagnosed by a health professional as having diabetes. Source: Statistics Canada, Canadian Community Health Survey 2005.

HNHB rates of Asthma are similar to the all Ontario rate of 8%

Hamilton Niagara Haldimand Brant LHIN rates of asthma[28] (8.65) are higher than the all Ontario rate (8%), with the highest rate in Brant County (9.1%) and the lowest rate Haldimand and Norfolk (6.3%).

High Percent (34.2%) of HNHB residents report being limited in their activities due to a physical or mental condition

A significantly high proportion (34.2%) of Hamilton Niagara Haldimand Brant LHIN residents report being limited in their activities due to a physical or mental condition[29], compared to the all Ontario rate (29.4%). Within the Hamilton Niagara Haldimand Brant LHIN area, significantly high rates of activity limitation were in Brant County (34.7%), Haldimand and Norfolk (38.8%), Hamilton (33.5%) and Niagara (36%). The lowest rates of activity limitation were in Burlington (27.1%).

5.3% of HNHB infants born in 2001 were of low birth weight, slightly lower than the all Ontario rate (5.7%)

Low birth weight[30] is a key determinant of infant survival, health, and development. Low birth weight infants are at a greater risk of having a disability and for diseases such as cerebral palsy, visual problems, learning disabilities and respiratory problems than infants with a normal birth weight. In the Hamilton Niagara Haldimand Brant LHIN area 5.3% of infants born in 2001 were of low birth weight, lower than the all Ontario rate (5.7%). The highest rate of low birth weight babies within the Hamilton Niagara Haldimand Brant LHIN area was in Brant County (6.6%) and the lowest rate in Burlington (4.9%).

The rate of new cancer cases[1] in HNHB in 2001 was similar to the all Ontario rate

The rate of new cancer cases[31] reported among residents of the Hamilton Niagara Haldimand Brant LHIN area in 2001 was 397.3/100,000 population (age-standardized rate), similar to the Ontario rate. Within the Hamilton Niagara Haldimand Brant LHIN area the highest rate of new cancer cases was in Haldimand and Norfolk (419.3/100,000) and the lowest rate in Niagara (388.9/100,000).

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[28] Population aged 4 and over (or aged 12 and over for data from the Canadian Community Health Survey and National Population Health Survey, North component) who report that they have been diagnosed by a health professional as having asthma. Source: Statistics Canada, Canadian Community Health Survey 2005.

[29] Population aged 12 and over whom report being limited in selected activities (home, school, work and other) because of a physical condition, mental condition, or health problem which has lasted or is expected to last six months or longer. Source: Statistics Canada, Canadian Community Health Survey 2005.

[30] Live births less than 2,500 grams, expressed as a percentage of all live births (birth weight known). Source: Statistics Canada, Vital Statistics, Birth Database.

[31] Age-standardized rate of new primary sites of cancer (malignant neoplasms) per 100,000 population, for all cancers. Source: Statistics Canada , Vital Statistics, Cancer Database, Canadian Cancer Registry, and Demography Division (population estimates)

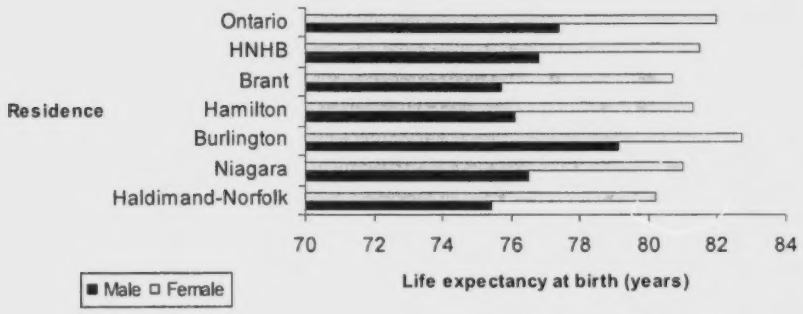
2.3 Deaths

Life expectancy among male residents of HNHB was 76.8 years and among female HNHB residents 81.5 years, significantly lower than Provincial life expectancy.

Life expectancy measures quantity rather than quality of life. It is a widely-used indicator of the health of a population. As of 2001, life expectancy measured at birth[32] among male residents of the Hamilton Niagara Haldimand Brant LHIN area was 76.8 years and among female Hamilton Niagara Haldimand Brant LHIN residents 81.5 years, significantly lower than the life expectancy for all Ontario males and females (77.5 and 82.1, respectively). Within the LHIN, Brant residents had the lowest life expectancy with 75.7 years among males and 80.7 years among females, and Burlington had the highest life expectancy with 79.5 years among males and 83 years among females.

[32] Life expectancy is the number of years a person would be expected to live, starting from birth (for life expectancy at birth) and similarly for other age groups, on the basis of the mortality statistics for a given observation period. Source: Statistics Canada, Vital Statistics, Death Database, and Demography Division (population estimates)

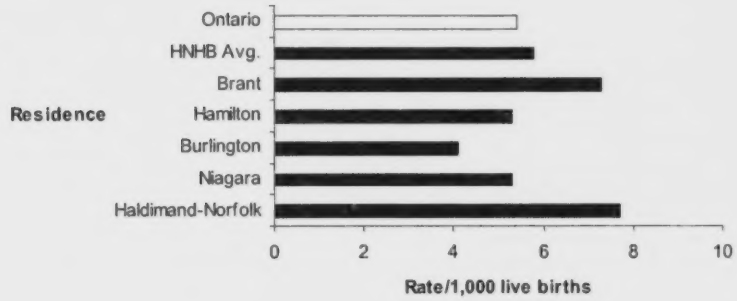
Chart 16: Life Expectancy at Birth, HNHB LHIN, by County of Residence, 2001:



Source: Statistics Canada, Vital Statistics, Death Database, and Demography Division (population estimates)

Infant mortality is a long-established measure, not only of child health, but also of the well-being of a society. It reflects the level of mortality, health status, and health care of a population, and the effectiveness of preventive care and the attention paid to maternal and child health.

Chart 17: Infant Mortality Rates per 1,000 Live Births, HNHB LHIN, by County of Residence, 2001:



Source: Statistics Canada, Vital Statistics, Birth and Death Databases

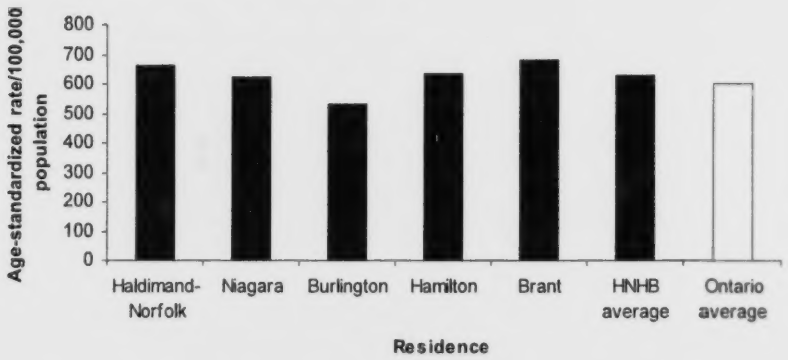
HNHB Infant Mortality Rate Higher than All Ontario Rate

As of 2001, the infant mortality rate[33] in the Hamilton Niagara Haldimand Brant LHIN area of 5.8 per 1000 live births was higher than the Ontario rate of 5.4 per 1,000. Within Hamilton Niagara Haldimand Brant LHIN the highest rates of infant mortality were in Haldimand and Norfolk (7.7/1,000) and the lowest rates in Burlington (4.1/1,000).

[33] Infants who die in the first year of life, expressed as a count and a rate per 1,000 live births. Source: Statistics Canada, Vital Statistics, Birth and Death Databases

Mortality rates indicate the overall health of the population; similar to what is measured by life expectancy. Lower death rates indicate success in prevention, detection, and treatment of disease and reducing suicide. In the Hamilton Niagara Haldimand Brant LHIN area 19.7% of deaths occur before the age of 65, and 39.4% occur before the age of 75 (the Ontario percentages are 21.3% and 41.2% respectively).

Chart 18: Age-Standardized Rates of Death, All Causes, Per 100,000 Population, HNHB LHIN, by County of Residence, 2001:



Source: Statistics Canada, Vital Statistics, Death Database, and Demography Division (population estimates); Population Health Profile: Hamilton Niagara Haldimand Brant LHIN, Health System Intelligence Project, 2005.

Age-standardized All-Cause mortality rate[1] in HNHB was 630/100,000 population, higher than the Provincial Rate (603/100,000)

In 2001, the age-standardized all-cause mortality rate[34] in the Hamilton Niagara Haldimand Brant LHIN area was 629.8/100,000 population, higher than the provincial rate (602.6/100,000). Within the Hamilton Niagara Haldimand Brant LHIN area, significantly high age-standardized rates of mortality were in Brant (679/100,000), Haldimand and Norfolk (661.7/100,000), Hamilton (634.8/100,000) and Niagara (625.7/100,000). Burlington residents had significantly low age-standardized rates of death (529.4/100,000).

Circulatory Disease and Neoplasms are Largest Contributors to High HNHB Mortality Rates

High rates of mortality in Hamilton Niagara Haldimand Brant LHIN communities are primarily due to high rates of circulatory disease and neoplasms, which are the two leading causes of mortality and morbidity. Within the LHIN, Hamilton and Niagara residents have significantly high age-standardized rates of death due to neoplasms; Brant, Haldimand, Norfolk and Niagara residents have significantly high age-standardized rates of death due to circulatory disease; and, Brant residents have significantly high age-standardized rates of death due to respiratory disease. Burlington residents have significantly low age-standardized rates of death overall, and specifically for deaths due to circulatory disease, respiratory disease and injury. Hamilton residents have significantly low age-standardized rates of death due to injury and Niagara residents have significantly low age-standardized rates of death due to respiratory disease.

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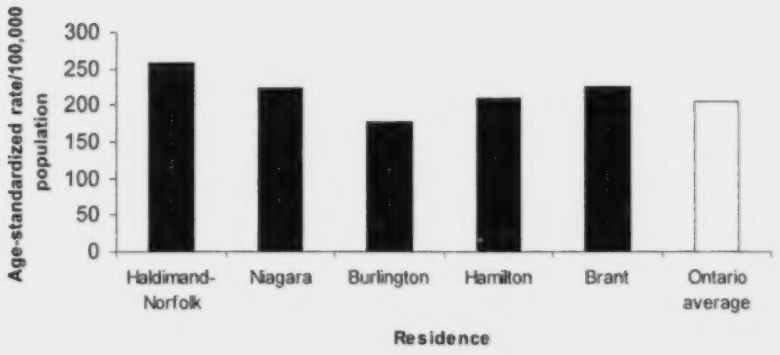
[34] Age-standardized rate of death from all causes per 100,000 population. Source: Statistics Canada, Vital Statistics, Death Database, and Demography Division (population estimates)

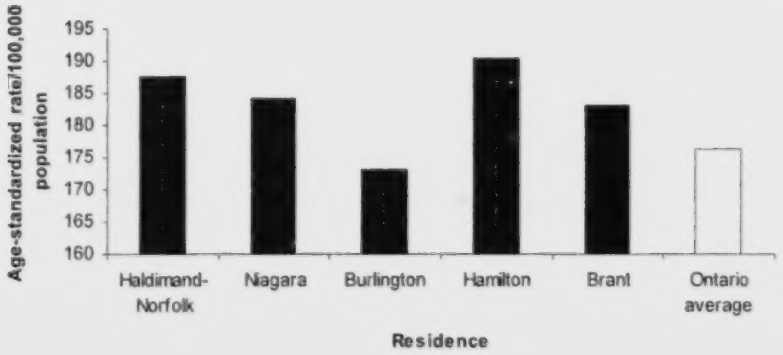
Age-standardized rates of death due to suicide are similar to the provincial average across the Hamilton Niagara Haldimand Brant LHIN.

Chart 19: Age-Standardized Rates of Death Due to Circulatory Disease, Per 100,000 Population, HNHB LHIN, by County of Residence, 2001:



Source: Statistics Canada, Vital Statistics, Death Database, and Demography Division (population estimates)

Chart 20: Age-Standardized Rates of Death Due to Neoplasms Per 100,000 Population, HNHB LHIN, by County of Residence, 2001:



Source: Statistics Canada, Vital Statistics, Death Database, and Demography Division (population estimates)

The HNHB LHIN rate of Potential Years of Life Lost (PYLL) is 13% higher and significantly different than the all Ontario average

Potential Years of Life Lost rates are useful for quantifying the number of years of life "lost" from deaths that occur "prematurely" (i.e., before age 75). Within Hamilton Niagara Haldimand Brant LHIN, Potential Years of Life Lost (PYLL) rates are significantly higher than the provincial average (from 10 to 20% higher) in the communities of Hamilton, Brant, Haldimand, Norfolk, and Niagara. Burlington PYLL rates are 21% lower and significantly different from the provincial average.

Chart 21: Potential Years of Life Lost, Rate per 100,000 Population, All Causes, HNHB LHIN, by County of Residence, 2001:

Source: Statistics Canada, Vital Statistics, Death Database, and Demography Division (population estimates)

Neoplasms contribute to more years of potential life lost for HNHB residents than any other cause, followed by circulatory system diseases, and external causes (i.e., injuries)

Neoplasms contribute to more years of potential life lost for HNHB residents than any other cause, followed by circulatory system diseases, and external causes (i.e., injuries). Compared to the provincial average, rates of PYLL due to neoplasm and circulatory disease are significantly higher in Brant, Haldimand, Norfolk, Hamilton and Niagara, and significantly lower in Burlington. Compared to the all Ontario rate of PYLL due to respiratory disease, rates are significantly higher in Haldimand, Norfolk, Hamilton and Niagara, and significantly lower in Burlington. Compared to the all Ontario rate of PYLL due to injury, rates are significantly higher in Brant, Haldimand, Norfolk and Niagara and significantly lower in Burlington and Hamilton. Compared to the all Ontario rate of PYLL due to suicide, rates are significantly higher in Brant and Haldimand-Norfolk and significantly lower in Burlington, Hamilton and Niagara.

3.0 Health Care System Utilization, Capacity and Performance

3.1 Health Care System Utilization

Acute Inpatient and Mental Health Hospitalizations

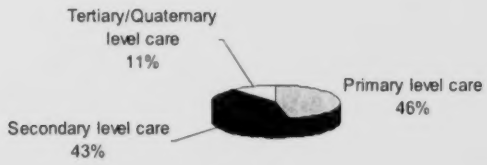
Identifying and understanding patterns of hospitalization are important to health system planners. Patterns of acute inpatient hospitalization are influenced by hospital system capacity, the availability of physicians and community services, and the age structure, health status and socio-economic characteristics of the population. Acute inpatient care represents a major component of hospital expenditures and provides a proxy measure of allocation of hospital resources.

In the fiscal year 2004/05, residents of HNHB had the highest volume of acute hospitalizations among all 14 LHIN populations. 93% of these separations were from hospitals in HNHB

In the fiscal year 2004/05, residents of the Hamilton Niagara Haldimand Brant LHIN area had a total of 121,769 inpatient separations[35] and 788,290 inpatient days at Ontario acute care hospitals[36], the highest volume of acute hospitalizations among all 14 LHIN populations[xi]. 93% of these separations were from hospitals located in the Hamilton Niagara Haldimand Brant LHIN area. Whereas Hamilton Niagara Haldimand Brant LHIN residents represented 10.9% of the provincial population, they accounted for 12.3% of all acute inpatient hospitalizations by Ontario residents in 2004/05. 94% of these separations were for acute medical or surgical care (including obstetrical care).

Acute mental health separations[37] accounted for 5.5% (6,722) of all inpatient separations and 10.3% (81,279) of total inpatient days attributed to Hamilton Niagara Haldimand Brant LHIN residents at Ontario acute care hospitals.

Chart 22: HNHB Residents' Inpatient Separations from Ontario Acute Care Hospitals, by Level of Care, 2004/05:



Source: p.3, Acute Care Utilization Report, Health System Intelligence Project, Ontario Ministry of Health and Long-Term Care, 2006.

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[35] Separation: a completed case treated in hospital resulting in any of the following: discharge home, transfer to another facility, death or patient sign out. Includes ALC and acute care hospital mental health. Does not include newborns.

[36] Data are reported based on the patient's residence, not LHIN/municipality/county of hospitalization. As such, these figures reflect the hospitalization experience of residents of the Hamilton Niagara Haldimand Brant LHIN wherever they are treated in Ontario.

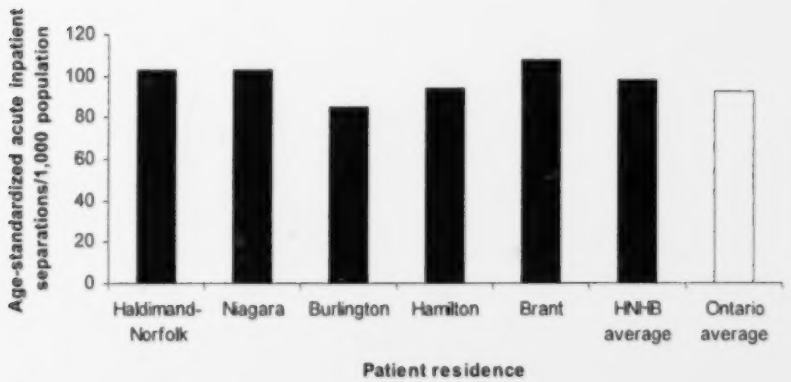
[37] Acute mental health separations include all those falling within the psychiatric program cluster category, including patients not in special psychiatric units of hospitals. Does not include hospitalizations in specialized mental health facilities (former provincial psychiatric hospitals).

46.6% of Hamilton Niagara Haldimand Brant LHIN residents' acute inpatient separations were considered primary level care, 42.5% secondary level care and 10.9% tertiary/quaternary level care, proportions that are similar to the provincial average.[38] Within the Hamilton Niagara Haldimand Brant LHIN area, residents of Hamilton and Niagara were each responsible for just over 35% of total acute inpatient separations by Hamilton Niagara Haldimand Brant LHIN residents, followed by residents of Burlington (11%), Brant (10.5%) and Haldimand and Norfolk (7.6%).

HNHB Acute Inpatient Utilization per Population Higher Than Ontario Average

While the Hamilton Niagara Haldimand Brant LHIN population's relatively high percentage of seniors contributes to a disproportionately high volume of acute inpatient separations compared to the Ontario rate, an examination of age-standardized[39] rates of utilization shows that other factors are influencing Hamilton Niagara Haldimand Brant LHIN residents' relatively high demand for hospital care. In 2004/05, the age-standardized rate of acute inpatient hospitalization for residents of Hamilton Niagara Haldimand Brant LHIN was 98/1,000 population; a rate significantly higher than the Ontario rate (93/1,000 age-standardized).

Chart 23: Acute Inpatient separations from Ontario acute care hospitals, Age-Standardized rate per 1,000 Population, Residents of HNHB LHIN, by Patient Residence, 2004/05:



Source: p. 3, Acute Care Utilization Report, Health System Intelligence Project, Ontario Ministry of Health and Long-Term Care, 2006.

The LHIN's higher age-standardized rates of hospitalization may be attributed to a combination of factors that influence population health status and the demand for health care, (i.e., socio-economic status, personal resources, lifestyle

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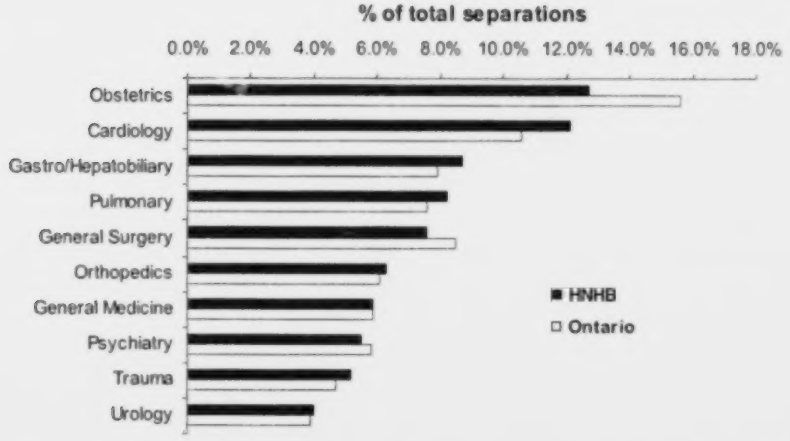
[38] *Level of Care:* A level of care is assigned using the Hay Level of Care methodology. Three categories define level of care: Primary care, which can be provided in any hospital setting by general practitioners or specialists; Secondary care includes surgical and other procedures provided by medical specialists, usually in larger community hospitals; Tertiary and quaternary cases involve highly specialized, costly care provided to seriously ill patients, most often in larger regional referral centres or teaching hospitals.

[39] *Age-standardized Rate:* A summary rate which adjusts for variations in population age distributions over time and place. Mortality and hospitalization rates are adjusted using the Direct Method and the 1991 Canadian population as the standard.

behaviours and the use of preventive health care services). Having regular access to a family physician can reduce the need to access hospital emergency departments for primary care, and reduce the likelihood of admission to hospital.

Chart 24: Leading Clinical Areas (i.e., Program Cluster Categories[40]) as a % of Total Inpatient Separations from Ontario hospitals, HNHB LHIN and Ontario, 2004/05:



Source: p. 2, Acute Care Utilization Report, Health System Intelligence Project, Ontario Ministry of Health and Long-Term Care, 2006.

Many of the Leading Causes of Hospitalization among residents of HNHB reflect an Older Population with a Higher Prevalence of Chronic Health Conditions

The leading causes of hospitalization among residents of the Hamilton Niagara Haldimand Brant LHIN area also reflect the distinguishing characteristics of the population, (i.e., an older age structure with a higher prevalence of chronic health conditions). For example, while obstetrics was the leading cause of hospitalization among both Ontario and Hamilton Niagara Haldimand Brant LHIN residents in 2004/05, obstetrics represented a smaller proportion of total LHIN residents' inpatient separations (12.5%), when compared to the all Ontario rate (15.6%). Similarly, whereas cardiology was the second leading cause of hospitalization among both Ontario and Hamilton Niagara Haldimand Brant LHIN residents, it accounted for 12.1% of total separations by Hamilton Niagara Haldimand Brant LHIN residents, compared to 10.6% for all of Ontario.

Emergency Visits and Day Surgery Hospitalization:

HNHB residents had 587,649 ED and 128,123 Day Surgery visits at Ontario hospitals in 2004

In the fiscal year 2004/05, Hamilton Niagara Haldimand Brant LHIN residents utilized 587,649 emergency department (ED) and 128,123 day surgery visits at Ontario hospitals, accounting for the highest volume of ED visits and second-highest volume of day surgery visits among the 14 LHIN populations and representing approximately 11.5% of the total ED and day surgery visits at Ontario hospitals.

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[40] Program Cluster Categories (PCCs) are groupings of Case Mix Groups (CMG) aggregated into 30 broad program areas. The CMG methodology groups hospital patients with similar diagnosis and treatment requirements.

Age-standardized rate of ED visits in HNHB was Significantly Higher than Ontario Rate; Age-Standardized rate of Day Surgery was similar to the all Ontario rate

The age-standardized rate of ED visits in HNHB was 433/1,000, significantly higher than the Ontario rate (401/1,000). The age-standardized rate of day surgery was 83.9/1,000, similar to the all Ontario rate (83.3/1,000). Within the Hamilton Niagara Haldimand Brant LHIN area, rates of ED and day surgery utilization vary greatly. Residents of Haldimand-Norfolk exhibit the highest age-standardized rates of ED use (599/1,000), and residents of Burlington the lowest (251/1,000 population). The variation in age-standardized ED visit rates across Hamilton Niagara Haldimand Brant communities may be influenced by a variation in population health status – as outlined in the preceding section, and a variation in access to primary care from a family physician – which is discussed in the section on health care system capacity, below.

Chart 25: Emergency Department Visits, Age-Standardized Rates per 1,000 Population, HNHB Residents, by Patient Residence, 2004/05:

Source: Hospital Discharge data, Population Health Planning Database, Ontario Ministry of Health and Long-Term Care.

Chart 26: Day Surgery Visits, Age-Standardized Rates per 1,000 Population, HNHB Residents, by Patient Residence, 2004/05:

Source: Hospital Discharge data, Population Health Planning Database, Ontario Ministry of Health and Long-Term Care.

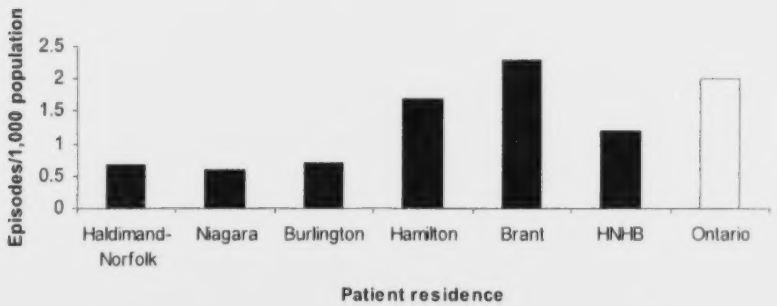
Within the Hamilton Niagara Haldimand Brant LHIN area, the largest volumes of day surgery are related to diseases and conditions associated with an aging population (e.g., the removal of neoplasms, cataracts, gall bladders, etc.). The highest age-standardized rates of day surgery utilization are for residents of Brant and Niagara (89/1,000) and the lowest rates for residents of Burlington (69/1,000 population).

Inpatient Rehabilitation and Complex Continuing Care Hospitalization:

HNHB residents accounted for 2,214 inpatient rehabilitation admissions[1] at Ontario hospitals in 2004

In fiscal year 2004/05, Hamilton Niagara Haldimand Brant LHIN residents accounted for 2,214 inpatient rehabilitation admissions[41] at Ontario hospitals, accounting for the 7th highest volume of inpatient rehabilitation admissions among the 14 LHIN populations and representing 7.4% of the total inpatient rehabilitation admissions at Ontario hospitals.

Chart 27: Rehabilitation Episodes, at Designated Inpatient Rehabilitation Beds, Age-Standardized Rates Per 1,000 Population, HNHB LHIN and Ontario, by Patient Residence, 2004/05:



Source: National Rehabilitation Reporting System, Population Health Planning Database, Ministry of Health and Long-Term Care.

Inpatient Rehab per Population for HNHB Residents was Significantly Below Ontario Average

The age-standardized rate of inpatient rehabilitation episodes among Hamilton Niagara Haldimand Brant LHIN residents was 1.2/1,000 population, significantly lower than the Ontario rate (2.0/1,000). Within the Hamilton Niagara Haldimand Brant LHIN area, rates of inpatient rehabilitation episodes vary. The lowest age-standardized rates of inpatient rehabilitation episodes were for residents of Niagara (0.6/1,000) and the highest rates for residents of Brant (2.3/1,000).

HNHB Residents Had Highest Volume of CCC Admissions of all LHINs

In fiscal year 2004/05, Hamilton Niagara Haldimand Brant LHIN residents had 3,274 complex continuing care (CCC) admissions[42] at Ontario hospitals, the highest volume of CCC admissions among the 14 LHIN populations and representing 16.4% of the total CCC admissions at Ontario hospitals.

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[41] This data includes only adult (aged 17+) inpatient rehabilitation admissions to designated rehabilitation hospitals and designated rehabilitation beds (general and special) in hospitals in Ontario.

[42] Source: Continuing Care Reporting System, Population Health Planning Database, Ministry of Health and Long-Term Care.

Chart 28: Admissions to Complex Continuing Care Hospitals/Beds, Age-Standardized Rates Per 1,000 Population, HNHB LHIN and Ontario, by Patient Residence, 2004/05:

Source: Continuing Care Reporting System, Population Health Planning Database, Ministry of Health and Long-Term Care.

Rate of Utilization of CCC by HNHB Residents Was Significantly Above Ontario Average

The age-standardized rate of complex continuing care admissions for Hamilton Niagara Haldimand Brant LHIN residents was 1.7/1,000 population, significantly higher than the Ontario rate (1.3/1,000 population). Within the Hamilton Niagara Haldimand Brant LHIN area, rates of CCC admissions varied substantially. The highest age-standardized rates of CCC admission were for residents of Niagara (2.6/1,000) and the lowest rates for residents of Burlington (0.9/1,000).

Patient Flow - In and Out of the Hamilton Niagara Haldimand Brant LHIN:

Inflow:

6% of HNHB Hospital Inpatients Live Outside the LHIN and Travel for Specialized Care

In the 2004/05 fiscal year, 6% of the total acute inpatient cases (8,156 cases) at Hamilton Niagara Haldimand Brant LHIN hospitals were patients who did not reside in the LHIN. The majority of these cases required specialized treatment in the areas of cardiac, obstetrics and neonatology, general surgery, orthopaedics and trauma.

Outflow:

7% of HNHB LHIN Resident Inpatient Acute Care Was Provided Outside the LHIN Hospitals

In the same year, just over 7% of Hamilton Niagara Haldimand Brant LHIN residents' total acute inpatient cases (10,024 cases) went to acute care hospitals outside of the LHIN. Almost 50% of this outflow occurred in the following clinical program areas: cardiac, obstetrics, neonatology, general surgery and psychiatry.

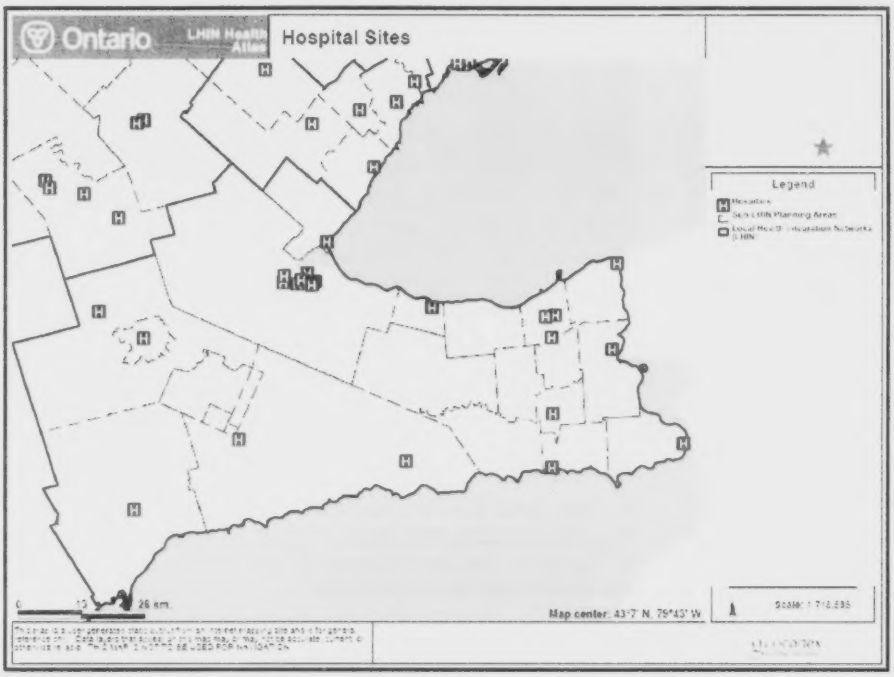
Inflow/outflow data is used to inform joint-LHIN planning. Patients are not obliged to receive care only at hospitals located within their LHIN. The utilization of hospitals outside of a patient's home LHIN is attributed to a range of factors, including: physician referral patterns; the availability of services; waiting time for services; and, patient preferences and convenience.

3.2 Health Care System Capacity

Health Service Maps

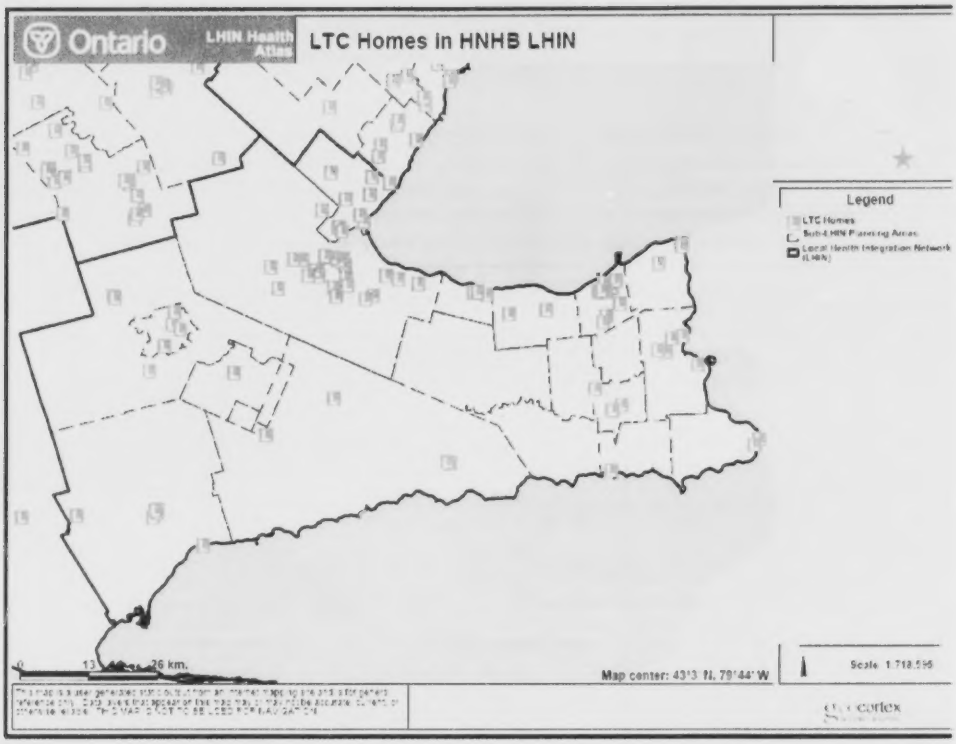
There are 248 health service provider agencies in the HNHB LHIN, delivering a wide range of health services

As of 2005/06, there were 5 Community Care Access Centres (CCACs); 3 Community Health Centres (CHCs); 12 hospital corporations (on 23 hospital sites); 91 Community Support Service agencies; 29 Mental Health agencies; 18 Substance Abuse and Problem Gambling programs; and, 90 Long-Term Care Homes. The service envelope for which the LHIN has planning, coordination and funding responsibility does *not* include physician services, pharmacy, ambulance services, independent health facilities, and public health.



Hospitals:

As of March 2006, there were 3,501 hospital beds staffed and in operation within the Hamilton Niagara Haldimand Brant LHIN, including: 2087 acute, 383 acute/forensic mental health, 710 complex continuing care, and 321 general and specialized rehabilitation. During the 2006/07 fiscal year, hospitals within the LHIN will receive $1.48B in annual operating funds from the MOHLTC.



Long-Term Care Homes:

In 2005 there were 90 long-term care facilities located in the Hamilton Niagara Haldimand Brant LHIN area, with just over 10,000 available beds. LTC Homes in the Hamilton Niagara Haldimand Brant LHIN received $334M in annual operating funds in 2005/06 from the MOHLTC.

10,000 LTC Beds in HNHB

Chart 29: Long-Term Care Homes and Beds, HNHB LHIN and Ontario, 2004:

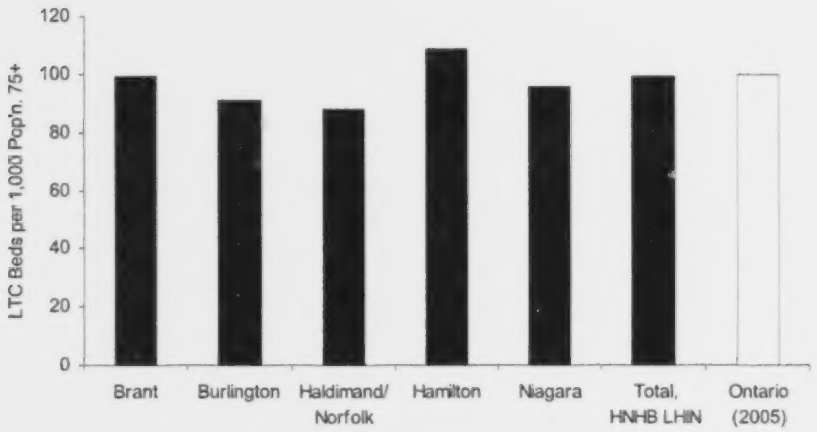
Community	Number of LTC Homes in 2005	LTC beds in 2005
Brant	8	890
Burlington	9	1,079
Haldimand/ Norfolk	10	672
Hamilton	29	3,976
Niagara	34	3,511
Total, HNHB LHIN	90	10,128
Ontario	618	75,097

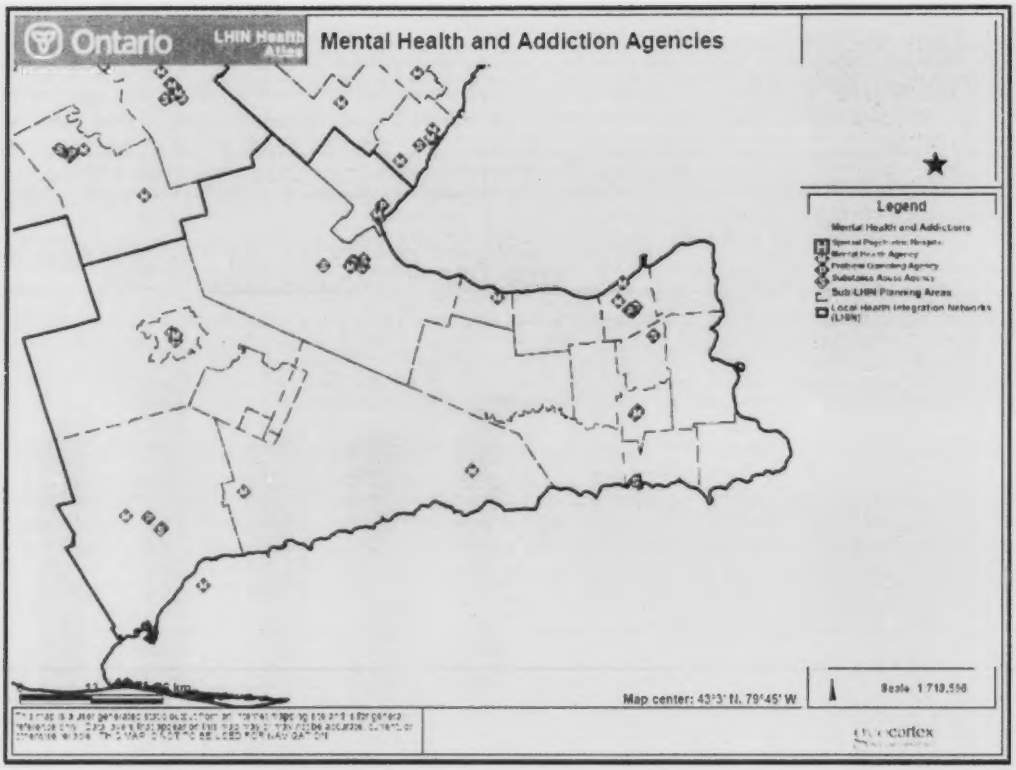
Source: Community Health Division, Long-Term Care Planning & Renewal Branch, Ministry of Health and Long-Term Care.

Ratio of LTC Beds per Elderly Population is Higher in HNHB Than Provincial Average

Almost 85% of Ontario long-term care beds are occupied by residents aged 75 years or older. When the number of long-term care beds is compared with the number of LHIN residents aged 75 years or older, the ratio of beds to elderly residents in the Hamilton Niagara Haldimand Brant LHIN (99.6 beds per 1,000 elderly) is just under the Ontario average (99.7 beds per 1,000 elderly). However, this ratio varies from a low of 88.1 beds per 1,000 population aged 75 years and older in Haldimand/Norfolk, to a high of 108.6 in Hamilton.

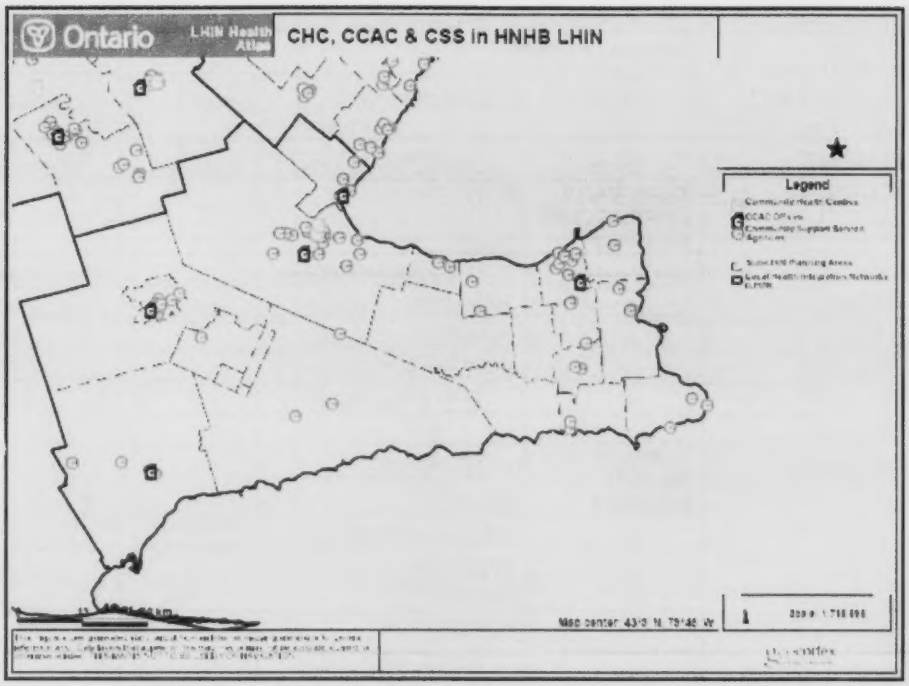
Chart 30: Long-Term Care Beds per 1,000 Population Aged 75 Years and Older, HNHB Counties and Ontario, 2005:





Mental Health and Addiction Agencies:

As of fiscal year 2006/07, 29 mental health agencies and 18 substance abuse and problem gambling programs within the Hamilton Niagara Haldimand Brant LHIN received annual operating funds of $43.8M and $11.1M, respectively, from the MOHLTC.



Community Care Access Centres (CCAC):

In the 2006/07 fiscal year, the five CCACs in the Hamilton Niagara Haldimand Brant LHIN will receive $209M in annual operating funds from the MOHLTC.

Community Health Centres (CHC):

As of 2006, there were three CHCs within the Hamilton Niagara Haldimand Brant LHIN, receiving annual MOHLTC funding of $8.1M.

Community Support Service Agencies:

As of 2006, there were 91 community support service agencies within the Hamilton Niagara Haldimand Brant LHIN, receiving annual MOHLTC funding of $55.8M.

Chart 31: 2006/07 Ministry Base Funding by Sector and Geography, as at October 31 2006

Sector	County/Municipality	# of Agencies	2006/2007 Ministry Base Funding[43]	% of total base funding
COMMUNITY CARE ACCESS CENTRES	BRANT	1	$ 17,931,088	
	HALDIMAND/NORFOLK	1	16,245,132	
	HAMILTON	1	68,083,989	
	NIAGARA	1	62,623,847	
	BURLINGTON	1	44,585,562	
	TOTAL HNHB LHIN	**5**	**$ 209,469,618**	**9.70%**
COMMUNITY HEALTH CENTRES	BRANT	0	$ -	
	HALDIMAND/NORFOLK	0	-	
	HAMILTON	2	5,479,748	
	NIAGARA	1	2,678,143	
	BURLINGTON	0	-	
	TOTAL HNHB LHIN	**3**	**$ 8,157,891**	**0.38%**
COMMUNITY SUPPORT SERVICES	BRANT	13	$ 5,215,195	
	HALDIMAND/NORFOLK	8	3,039,872	
	HAMILTON	32	22,041,036	
	NIAGARA	33	23,598,525	
	BURLINGTON	5	1,961,895	
	TOTAL HNHB LHIN	**91**	**$ 55,856,523**	**2.59%**
HOSPITALS	BRANT	2	$ 100,995,143	
	HALDIMAND/NORFOLK	3	48,184,030	
	HAMILTON	3	934,960,162	
	NIAGARA	3	312,584,360	
	BURLINGTON	1	98,731,650	
	TOTAL HNHB LHIN	**12**	**$ 1,495,455,345**	**69.28%**
LTC HOMES	BRANT	8	$ 29,840,946	
	HALDIMAND/NORFOLK	8	22,452,430	
	HAMILTON	29	133,032,010	

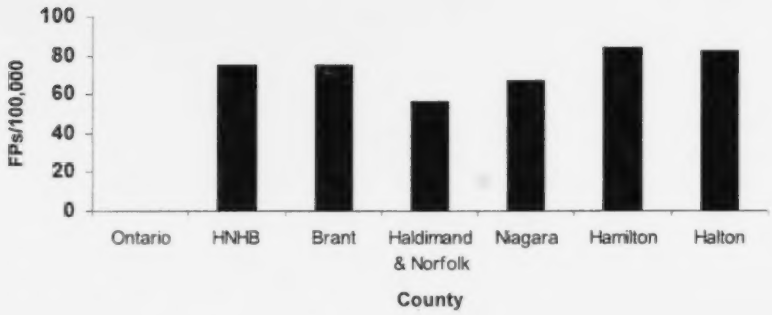
[43] 2006-2007 Funding-Note: LTC Homes Funding is for 2005-2006 as the allocation is based on announced annual per diems

Sector	County/Municipality	# of Agencies	2006/2007 Ministry Base Funding[43]	% of total base funding
	NIAGARA	32	113,822,527	
	BURLINGTON	8	35,558,518	
	TOTAL HNHB LHIN	**85**	**$ 334,706,431**	**15.51%**
MENTAL HEALTH	BRANT	4	$ 3,998,450	
	HALDIMAND/NORFOLK	5	3,929,500	
	HAMILTON	9	19,878,900	
	NIAGARA	8	10,219,404	
	BURLINGTON	3	5,811,638	
	TOTAL HNHB LHIN	**29**	**$ 43,837,892**	**2.03%**
PROBLEM GAMBLING	BRANT	1	$ 685,300	
	HALDIMAND/NORFOLK	2	1,309,100	
	HAMILTON	6	3,885,000	
	NIAGARA	5	4,540,200	
	BURLINGTON	0	-	
	TOTAL HNHB LHIN	**14**	**$ 10,419,600**	**0.48%**
SUBSTANCE ABUSE	BRANT	1	$ 60,200	
	HALDIMAND/NORFOLK	1	157,100	
	HAMILTON	1	281,400	
	NIAGARA	1	214,100	
	BURLINGTON	0	-	
	TOTAL HNHB LHIN	**4**	**$ 712,800**	**0.03%**
			total base funding by community and % of LHIN total	
TOTAL HNHB LHIN	BRANT	30	$ 158,726,322	7.35%
	HALDIMAND/NORFOLK	28	$ 95,317,164	4.42%
	HAMILTON	83	$ 1,187,642,245	55.02%
	NIAGARA	84	$ 530,281,106	24.57%
	BURLINGTON	18	$ 186,649,263	8.65%
	TOTAL HNHB LHIN	**243**	**$ 2,158,616,100**	**100.00%**

Supply of Physicians:

Physician-to-population ratios are used to support health human resource planning. While physician-to-population ratios are useful indicators of changes in physician numbers relative to the population, they should not be considered to be measures of the adequacy of the physician supply.

Chart 32: Family Physicians Per 100,000 Population, HNHB LHIN and Ontario, 2004:



Source: Canadian Institute for Health Information, Scott's Medical Database.

In 2004 HNHB Had 75 Family Physicians/ 100,000 population, Significantly lower than Ontario rate of 86

Physician-to-population ratios vary across the Hamilton Niagara Haldimand Brant LHIN area. As of 2004, there were 75 family physicians/100,000 population in the Hamilton Niagara Haldimand Brant LHIN, significantly lower than the provincial rate of 86 family physicians/100,000 population[44]. Within the Hamilton Niagara Haldimand Brant LHIN area the rate of family physicians/100,000 population varies, from a low of 57/100,000 in Haldimand and Norfolk to a high of 84/100,000 in Hamilton.

CCHS Reports 93.5% of HNHB Residents with Regular Medical Doctor, Highest of All LHINs

According to the 2005 Canadian Community Health Survey, 93.5% of Hamilton Niagara Haldimand Brant LHIN residents reported that they had a regular medical doctor. This reported rate was above the Ontario average (91.1%) and the highest of the 14 LHINs. 81.9% of Hamilton Niagara Haldimand Brant LHIN residents reported that they had contact with a medical doctor in the last 12 months, slightly higher than the Ontario average of 81.5%.[45]

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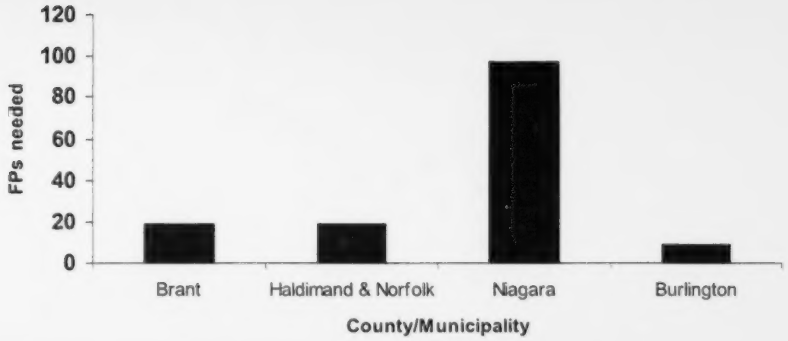
[44] Physician counts include all active general practitioners and family practitioners as of December 31 of 2004. The data include physicians in clinical and non-clinical practice and exclude residents and physicians who are not licensed to provide clinical practice and have requested that their information not be published in the Canadian Medical Directory. Source: Canadian Institute for Health Information, Scott's Medical Database.

[45] Source: Statistics Canada, Canadian Community Health Survey, 2005.

Chart 33: Underserviced Area Vacancies, HNHB LHIN, October 2006:



Source: Ontario Ministry of Health and Long-Term Care Underserviced Area Program

Communities within HNHB LHIN Have Been Designated as Underserviced for Family Physicians

As of October 2006, with the exception of Hamilton, communities within the Hamilton Niagara Haldimand Brant LHIN were designated as having family physician vacancies[46] by the Underserviced Area Program (UAP) of the Ontario Ministry of Health and Long-Term Care. It is important to note that, the Hamilton area is home to Academic Health Science Centres and a large network of family health teams. As a result, Hamilton's supply of full-time and practicing family physicians is sometimes overestimated and may not meet UAP criteria for designation. Within the Hamilton Niagara Haldimand Brant LHIN area, the UAP designated family physician vacancies varied by municipality, as follows: Fort Erie, 9; Grimsby, 3; Lincoln, 2; Niagara Falls, 23; Niagara-on-the-Lake, 2; Pelham, 4; Port Colborne/Wainfleet, 6; St. Catharines, 26; Thorold, 5; Welland, 17; and, West Lincoln, 1, (Niagara total: 98); Brant, 4; Brantford, 15; Haldimand 6; Norfolk, 13; and, Burlington, 9.

Introduction of Family Health Teams

Improving access to primary care with the introduction of Family Health Teams is a key component of the government's plan to build a health care system that delivers on three priorities - keeping Ontarians healthy, reducing wait times and providing better access to doctors and nurses. Family Health Teams include an interdisciplinary team of physicians and other providers such as nurse practitioners, nurses, social workers and dieticians.

Family Health Teams are designed to:

- Provide better access to care, closer to home;
- Work as a team to keep people healthy;
- Provide extended hours, and after hours access for advice and care;

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[46] Communities across the province may be designated for General/Family Practitioners (GP/FPs) if they are experiencing a severe shortage of physicians. Designation of communities as Underserviced is an ongoing self-assessment process, wherein communities identify themselves to the ministry as being in need of recruitment and retention assistance. The UAP designates communities as Underserviced when specific criteria are met. Factors considered include :health care professional data (how many serve the community), population and physician-to-population ratios, previous recruitment efforts, local demand for services, additional health service needs and resources, support of local health care professionals, etc. Health professionals relocating to Underserviced areas may be eligible for financial incentives and practice supports. Source: Ontario Ministry of Health and Long-Term Care.

- Help patients navigate their way through the health system;
- Provide primary health care, chronic disease management, and self help tools to improve health; and
- Use state of the art information technology giving providers access to patient information and test results.

13 Family Health Teams under Development in HNHB LHIM

13 Family Health Teams are in different stages of development in the LHIN. Family physicians practicing in FHTs account for approximately 25% of all family physicians/general practitioners in the LHIN. The largest FHT in the Province is the Hamilton Family Health Team, a network of Health Service Organizations (HSOs) and Family Health Network (FHN) primary care models. An early success in its implementation is the availability of a mental health counsellor and nutritionist to all patient populations in the Hamilton Family Health Team.

Chart 34: Family Health Teams and Family Physicians in Hamilton Niagara Haldimand Brant LHIN

Family Health Teams	# FHT physicians	Estimated Total # FPs active in Family Practice, as of Sept., 2006[47]
Total, Hamilton Niagara Haldimand Brant	**204**	**762**
Niagara	**44**	**194**
Beamsville Medical Centre Family Health	7	
Garden City FHT, St. Catharines	7	
Niagara Medical Group FHT, Niagara Falls	9	
Smithville Family Medical Centre FHT	7	
Portage Medical Group, Niagara Falls	4	
Niagara-on-the-Lake FHT	10	
Hamilton	**138**	**345**
Hamilton Family Health Team[48]	112	
Core Care FHT	17	
Escarpment Family Health Team	17	
Hamilton Downtown Medical Centre	2	
Hamilton Community Health Centre (HCHC)	7	
Innovations Family Medicine FHT	22	
Intramed FHT	18	
Main Medical Associates	3	
Stoney Creek and Hamilton Mountain FHT	20	
Rosedale Medical Group FHT	6	
McMaster Family Health Team	26	
Stonechurch Family Health Centre	13	
McMaster Family Practice	13	
Brant County, Brantford and Six Nations	**7**	**69**
Six Nations Health Services, Ohsweken	2	
Prima Care Community Family Health Team,	5	
Haldimand and Norfolk	**8**	**54**
Delhi CHC	5	
Haldimand County FHT, Hagersville and	3	
Burlington	**7**	**100**
Burlington Family Health Group	4	
Caroline Medical Group	3	

[47] Source: UAP Ontario Ministry of Health and Long-Term Care; Family Physician recruiters, HNHB LHIN communities, 2006.

[48] Hamilton FHT is a network of FHTs with a shared governance model

3.3 Health System Performance

Alternate Level of Care Days:

Integrating local health services to make it easier for patients to access the care they need is a primary goal of the LHIN. The coordination of care among health care providers can help to improve the quality of patient care and to alleviate the burden of cost to the system as a whole. High rates of Alternate Level of Care[49] (ALC) patients reflect less than optimal health system coordination and integration. ALC days as a percentage of total acute days is commonly used as an indicator of system capacity, coordination and integration. ALC days refers to the number of days patients use hospital beds instead of receiving care in more appropriate, community-based settings that could meet their specific care needs, (e.g., long-term care, rehabilitation, palliative care, etc.)

7% of HNHB Acute Care Inpatient Days were ALC Days (65,933 Days)

In fiscal year 2004/05, Hamilton Niagara Haldimand Brant LHIN residents had 65,933 ALC days, 7% of their total inpatient days[50] in Ontario acute care hospitals; this is consistent with the Ontario rate of 7%.

Chart 35: Alternate Level of Care Separations, Age-Standardized Rates/1,000 Population, HNHB and Ontario, 2004/05:

Source: Hospital Discharge data, Population Health Planning Database, Ontario Ministry of Health and Long-Term Care.

ALC Days per Population in HNHB Significantly Higher Than Ontario Average

The age-standardized rate of ALC cases/1,000 population in the Hamilton Niagara Haldimand Brant LHIN area was 2.9/1,000, significantly higher than the Ontario rate of 2.6/1,000. Within the Hamilton Niagara Haldimand Brant LHIN area, the highest proportion of ALC days were displayed by residents of Haldimand and Norfolk, where ALC days represented 15% of their total inpatient days, and lowest proportion displayed by residents of Brant, where ALC days

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[49] An ALC patient is a patient who is considered a non-acute treatment patient but occupies an acute care bed. This patient is awaiting placement in a chronic care unit, long-term care home, rehabilitation facility, home care programs etc. The patient is classified as an ALC when the patient's physician gives an order to change the level of care from acute care and requests a transfer to another facility.

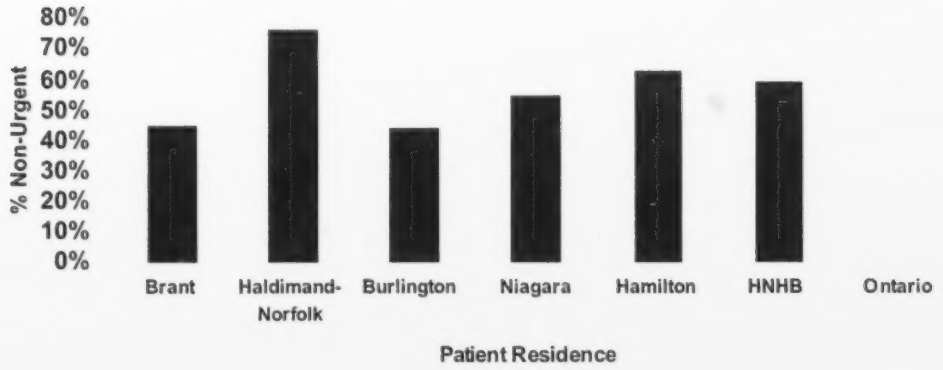
[50] Total days includes all inpatient days, no exclusions were made.

represented 3% of their total inpatient days. The age-standardized rates of ALC cases per 1,000 population also varied across the Hamilton Niagara Haldimand Brant LHIN area. Niagara residents had the highest rate (4.5 ALC cases/1,000) and Burlington residents the lowest (0.9 ALC cases/1,000).

Non-Urgent Emergency Department Visits

Improving the effectiveness and efficiency of the health care system is critical to making publicly-funded health care sustainable. Indictors that reflect the appropriateness of the setting in which care is received reflect system effectiveness and efficiency. These include the percent of emergency department visits which might be managed in a primary care setting and hospitalizations for ambulatory care sensitive conditions.

Chart 36: Percentage of Emergency Department Visits for 'Non-Urgent' Conditions, HNHB and Ontario, 2004/05:



Source: Hospital Discharge data, Population Health Planning Database, Ontario Ministry of Health and Long-Term Care.

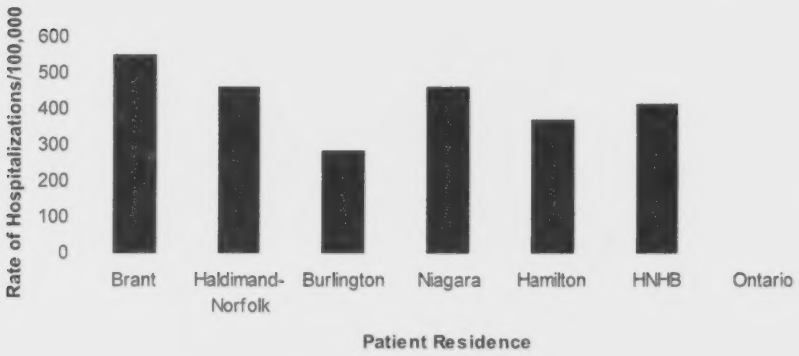
59% of the 580,000 HNHB ED visits were considered to be 'non-urgent' conditions with potential to be treated in primary care settings, (e.g., minor infections, colds, cysts, etc.)

In 2004/05, residents of the Hamilton Niagara Haldimand Brant LHIN area accounted for over 580,000 visits to the emergency department (ED). 59% of these visits were considered to be 'non-urgent' conditions with potential to be treated in primary care settings, (e.g., minor infections, colds, cysts, etc.). This is higher than the Ontario rate of 56%. Within the Hamilton Niagara Haldimand Brant LHIN area the highest proportion of ED visits with potential for management in a primary care setting was in Haldimand and Norfolk (76%) and the lowest rate in Burlington (44%). This variation in utilization may reflect a variation in population age structure and health status, as well as relative access to primary care.

Hospitalization for Ambulatory Care Sensitive Conditions:

Ambulatory care sensitive conditions (ACSC) are long-term health conditions, such as asthma, epilepsy, and diseases of the heart and lungs, which can often be managed with timely and effective treatment in the community[51].

Chart 37: Age-Standardized Rates of Hospitalization for Ambulatory Care Sensitive Conditions Per 100,000 Population, HNHB and Ontario, 2005/06:



Source: Hospital Discharge data, Population Health Planning Database, Ontario Ministry of Health and Long-Term Care.

Rate of Hospitalizations for Ambulatory Care Sensitive Conditions in HNHB was Significantly Higher than Ontario Average

In 2005, the average age-standardized rate of hospitalization for ACSC[52] in the Hamilton Niagara Haldimand Brant LHIN area was 413/100,000 population, significantly higher than the all Ontario average of 357/100,000 population and second-highest of 14 LHINs. Within the larger grouping of ambulatory care sensitive conditions being measured, the specific conditions of diabetes, chronic obstructive pulmonary disorder (COPD) and congestive heart failure (CHF) were significantly higher in the Hamilton Niagara Haldimand Brant LHIN area compared to Ontario rates of hospitalization for these conditions. Within the Hamilton Niagara Haldimand Brant LHIN area, Brant, Haldimand-Norfolk and Niagara residents had significantly high rates of hospitalization for ambulatory care sensitive conditions, and Hamilton and Burlington residents had lower than average rates, compared to the all Ontario rate.

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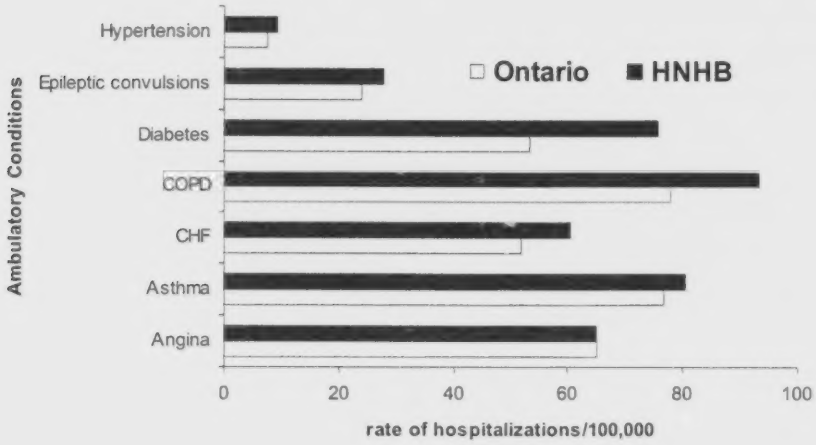
[51] ACSC include: asthma, chronic obstructive pulmonary disease, grand mal status and other epileptic convulsions, acute bronchitis, pneumonia and congestive heart failure.

[52] Age-standardized acute care hospitalization rate for conditions where appropriate ambulatory care prevents or reduces the need for admission to hospital, per 100,000 population under age 75 years. Source: Canadian Institute for Health Information, Hospital Morbidity Database, Discharge Abstract Database

Chart 38: Age-Standardized Rate of Hospitalization for Ambulatory Care Sensitive Conditions Per 100,000 Population, by Specific Condition, HNHB and Ontario, 2005/06:



Waiting Times for Priority Procedures

Background:

HNHB LHIN Wait Time Strategy Steering Committee

Considerable progress is being made in the Hamilton Niagara Haldimand Brant LHIN to reduce wait times for MOHLTC priority procedures. A Wait Time Strategy Steering Committee, co-chaired by hospital and community leaders in the LHIN is a forum for collaboration to develop action plans to improve access to services, increase efficiency and produce quality outcomes.

Ontario Wait Time Strategy

The Ontario Wait Time Strategy is a plan to improve access to care and reduce wait times for five major health services: cancer surgery, cardiac procedures (angiography, angioplasty, and bypass surgery), cataract surgery, hip and knee replacements and diagnostic scans (MRI and CT exams). Overall, the strategy is designed to

- Increase the number of procedures in order to reduce the backlog that has developed over the last decade;
- Invest in new, more efficient technology such as MRI machines and extending hours of operations;
- Standardize best practices for both medical and administrative functions in order to improve patient flow and efficiency; and
- Collect and report accurate and up-to-date data on wait times to allow better decision making and increase accountability.

Ontario's Wait Time Targets

Targets Based on Time By Which 90% of Cases Should Receive Service

Ontario's access targets were developed after consultation with clinical experts from across Ontario. They reflect a new priority system to better and more consistently manage access to services based on the urgency of need for treatment. The access target is defined as the wait time by which 90% of cases will have completed their surgery or exam (MRI or CT) from the time the decision was made by the specialist to proceed with surgery or exam.

Priority	Cataract	Hip and Knee	MRI Scan	Cancer	Cardiac
1	Immediate	Immediate	immediate	Immediate	Immediate
2	6 weeks	6 weeks	48 hours	2 weeks	2 weeks
3	12 weeks	12 weeks	2-10 days	4 weeks	6 weeks
4	26 weeks	26 weeks	4 weeks	12 weeks	26 weeks

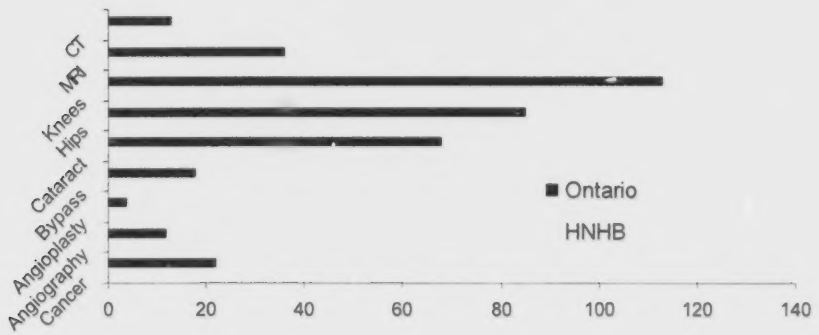
Median Wait Time

The ***median wait time*** is the point at which half the patients have had their treatment, and the other half are still waiting. For example, if a median wait time is 26 days, this means that half of the patients waited less than 26 days, and half waited more than 26 days. The median is another way of reflecting what a "typical" patient might have experienced in that time period. Unlike the average, the median will not be influenced by one or two very unusual cases (long or short), and is therefore more stable over time.

Wait Time Targets Achieved in Some Areas, But Not All

In the Hamilton Niagara Haldimand Brant LHIN, the access target is being achieved for cancer surgeries and cardiac procedures (angiography, angioplasty, and bypass surgery) and not in the service areas of hip and knee replacements, cataract surgery, and MRI and CT scans, on data reported for June/July 2006.

Chart 39: Median Waiting Time (Days) at HNHB LHIN Hospitals and Ontario Hospitals, June-July, 2006:



LHIN Will Monitor Impact on Access to Care for Other Residents Requiring Care

An unintended consequence of the wait time strategy is the degree to which people in the community may be waiting for in-home care and support requirements, as CCAC resources are directed to post hospital recovery for priority patients. This trend will be monitored and the level of population risk assessed.

Most HNHB Wait Times Have Decreased

While it is too early to declare victory, the overall trends are encouraging. Since the first comprehensive wait time data was collected, this LHIN has seen significant decreases in the wait times for the point at which almost all (90%) patients are treated, including: 71% for Hip Replacements, 61% for Knee Replacements, 34% for MRI Scans and 72% for CT scans.

While Cancer Surgery Wait Time Has Increased, It Remains Within MOHLTC Targets

Despite the increase in Cancer Surgery wait times in the Hamilton Niagara Haldimand Brant LHIN since Aug. /Sept. 2005, almost all Cancer Surgery cases are completed within the MOHLTC wait time targets—95% of Hamilton Niagara Haldimand Brant LHIN cancer cases are done within the Priority 4 Wait Time target of 84 days (12 weeks).

Also, despite a recent increase in wait times for Bypass Surgery, all cases (100%) are completed within the Priority 4 Wait Time target of 182 days (6 months).

All wait times will have some monthly fluctuations – up and down – based on factors such as seasonal changes in volume, or surgeons focusing more on patients who have been waiting the longest.

Since the launch of the Wait Time Strategy, hospitals in the HNHB LHIN have received $69.5 M in additional funding

Since the launch of the Wait Time Strategy, hospitals in the Hamilton Niagara Haldimand Brant LHIN have received $69.5 M in additional funding for 6,600 Cataract surgeries ($4.9 M), 3,112 Hip and Knee Replacements ($27.7 M), 2,390 Cardiac procedures ($21.7 M), 1,520 Cancer Surgeries ($9.5 M), 1,975 CT hours ($0.5 M) and 20,285 MRI scans ($5.2 M). These are some of the largest increases in case volumes in more than a decade.

Glossary

Age-standardized Rate: A summary rate which adjusts for variations in population age distributions over time and place. Mortality and hospitalization rates are adjusted using the Direct Method and the 1991 Canadian population as the standard.

Body Mass Index (BMI): a measure of body weight adjusted for height which is correlated with body fat. BMI is defined as weight in kilograms divided by height in meters squared. A BMI of 30 or more is classified as obese.

Census subdivision: area that is a municipality or an area that is deemed to be equivalent to a municipality for statistical reporting purposes (e.g., as an Indian reserve or an unorganized territory). Municipal status is defined by laws in effect in each province and territory in Canada.

Confidence intervals: indicate the degree of variability associated with an estimate. A 95% confidence interval indicates that estimates are accurate within the upper and lower confidence interval 19 times out of 20. Upper and lower bounds are shown as ± values in tables and error bars in charts.

Hospitalization rate: refers to the hospital separation rate for all hospital inpatients excluding newborns and stillbirths. A separation may be due to death, discharge home, or transfer to another facility.

Potential Years of Life Lost: represents the number of years not lived by an individual from birth to age 75 due to premature death. The PYLL rate provides the total years of life lost before age 75 to the total population under 75.

Statistical significance: an inference that a result is unlikely to have occurred due to chance alone.

END NOTES:

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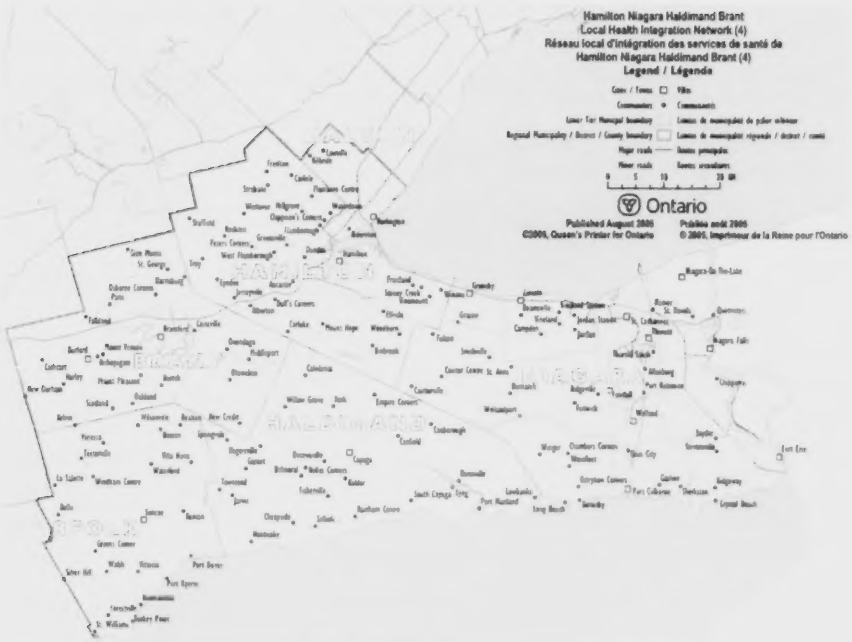
Hamilton Niagara Haldimand Brant
LOCAL HEALTH INTEGRATION NETWORK

RÉSEAU LOCAL D'INTÉGRATION DES SERVICES DE SANTÉ
de Hamilton Niagara Haldimand Brant


Hamilton Niagara Haldimand Brant
Local Health Integration Network (4)
Réseau local d'intégration des services de santé de
Hamilton Niagara Haldimand Brant (4)
Legend / Légende
Ontario
Published August 2005
©2005, Queen's Printer for Ontario
Publiée août 2005
© 2005, Imprimeur de la Reine pour l'Ontario

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ISBN 1-4249-2806-0

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